



# **Antibodies & Antigens**

## **Product Catalogue**

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# Our Company

## More than 30 years of experience in IVD (kits and instrumentation)

DiaSource ImmunoAssays (a BioVendor Group company), an international diagnostic company (Belgium), develops, manufactures and markets clinical diagnostic products in the field of endocrinology and infectious diseases. Core products are based on RIA and ELISA technology and also include reagents to be run on open ELISA automated analyzers as well as antibodies for use in in-vitro diagnostic assays. DiaSource has specific development and manufacturing programs for Vitamin D, Renin, Calcitonin and many others parameters. We also provide selected instrumentation: we offer ELISA reader, washer and shaker, along with open and closed fully automated ELISA platforms helping our customers to automate their tests. It is our ambition to use our 30 years of expertise in Antibody and Assay development to remain a well-known company of diagnostic immunoassays and instrumentation for the IVD market.

## Mission

Our mission is to develop, manufacture and market a complete panel of quality immunoassays and instrumentation as accurate, reliable, diagnostic tools to detect and monitor endocrine disorders and infectious diseases. We are dedicated to provide highly reliable quality assays and instrumentation to deliver uncompromising support to our customers. We strive for meeting our customers needs through a long-term professional relationship and by offering a real added value. Our company is driven by commitment to quality of products and services.

## Product range

During the last 30 years, we have developed manual ELISA and RIA immunoassays for the diagnosis and monitoring of a wide variety of endocrine disorders. We constantly rework

and develop specific antibodies for use in our diagnostic assays. In addition we offer these antibodies also to other diagnostic companies. Constantly looking for new technologies and applications, we put our expertise in the development of new antibodies (patent pending) and assays to measure 25OH Total Vitamin D (D2+D3). We strengthen our position in the diagnostic market by validating our ELISA assays on our open and closed automates. This innovation marks a turning point for our company, and makes of DiaSource, already renowned in the RIA market, a complete diagnostic provider. The interest in Vitamin D is rising rapidly. Since more than 10 years DiaSource manufactures immunoassays for 25OH Vitamin D3 and 1,25(OH)<sub>2</sub> Vitamin D. In our assay development program, we are focusing specifically on new Vitamin D assays. We introduced a new Total Vitamin D (D2 + D3) RIA and ELISA assay, an innovative free 25OH Vitamin D ELISA kit, together with a Rat 25OH Vitamin D ELISA kit for clinical research studies. The ELISA versions can also be applied on our instruments.

## Commitment to quality

We believe that the quality of products and services finds its origin in scientific expertise, good organization of all operational activities and in well-structured decision processes. These principles are laid out in our ISO 13485:2016 quality manual. Through the integration of product quality in our development and manufacturing processes and a specific customer-oriented approach, we have directed our quality system to comply with the harmonized standard for quality systems within the context of the European Directive for In Vitro Diagnostics. Our internal quality management system is designed to pursue a continuous improvement of our customer service, our product quality and the efficiency of our operations. All our kits and instruments for in-vitro diagnostics (IVD) carry the CE mark and comply with IVD Directive requirements.



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DiaSource ImmunoAssays S.A.



### Beatrice de Borman

CEO  
DiaSource ImmunoAssays S.A.

# To contact us

Our people, our professional and experienced Customer Service and Technical Support teams are dedicated to ensure complete customer satisfaction. We take pride in providing helpful and accurate information in a 24-hour turnaround time.



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# Monoclonal Antibodies

## More than 30 years of experience in Antibodies and Antigens for IVD assays

Since many years DiaSource ImmunoAssays has built up a respectful image of well-known supplier of Monoclonal Antibodies & Antigens , validated for development / manufacture of IVD kits.

Throughout our own assays projects, our R&D scientists have developed and selected the best matched pairs for sandwich assays, and the best antibody/conjugated antigen pair for the competitive assays. A special focus has been put on sensitivity, selectivity and stability to ensure a long term supply of highly performing material. It is our ambition to use our 30 years of expertise to remain a well-known supplier of Antibodies and Antigens for the IVD market.

The DiaSource Antibodies are produced in-house and purified using cutting-edge technologies.

The use of these antibodies and matching antigens in DiaSource RIA and ELISA immunoassays guarantees a high quality and uncompromising quality control.

This expertise in development and production of Monoclonal Antibodies, is a key element in our successful offering of these in-house developed antibodies to IVD manufacturing partners. Many of our antibodies are successfully used in different IVD immunoassays and technologies such as RIA (Radioimmunoassay), ELISA (Enzyme-Linked ImmunoSorbent Assay), POCT (Point Of Care Test) and CLIA (Chemiluminescence Immunoassay) to receptors modulating antibodies (accelerating endocytosis resulting in loss of receptors).

## Product Range

The DiaSource antibody product range covers areas the following areas:

- |                           |                         |                              |
|---------------------------|-------------------------|------------------------------|
| - Anemia                  | - Diabetes & Metabolism | - Kidney Function            |
| - Bone Metabolism         | - Fertility             | - Metabolism- Growth Factors |
| - Cancer                  | - Gastrointestinal      | - Thyroid Function           |
| - Cardiovascular diseases | - Inflammation          |                              |

## We do offer

- Small to Large scale production capacity (Roller bottles, Hollow Fibers)
- Very good lot-to-lot consistency
- Trained and dedicated personnel
- In-house Expertise: from hybridoma over antibody production to QC testing
- Experienced technical support



# Our Antigens & Monoclonal antibodies

Our Monoclonal Antibodies are available in the purified unconjugated, purified fragmented and purified biotin conjugate formats. Our Antigens are available with different conjugated labels, or with chemical functionalities that allow further conjugation with any label. Contact us for more information about the formats.

DiaSource expertise in antibody and antigens development and production, along with our expertise in IVD immunoassay development, creates interesting synergies that can help IVD companies bring new assays to the market in a reliable and efficient way.

## **Commitment to Quality: manufactured under ISO-certificate**

We believe that the quality of products and services finds its origin in scientific expertise, good organization of all operational activities and in well-structured decision processes. These principles are laid out in our ISO 9001 and 13485 quality manuals. Through the integration of product quality in our development and manufacturing processes and a specific customer-oriented approach, we have di-

rected our quality system to comply with the harmonized standard for quality systems within the context of the European Directive for In Vitro Diagnostics. Our internal quality management system is designed to pursue a continuous improvement of our customer service, our product quality and the efficiency of our operations.



# Anemia

Anemia is a condition that occurs when the amount of Hb in a person's blood drops below normal. Several routine laboratory tests may be used to help diagnose anemia as well as help to determine the underlying cause.

Depending on the results of these, the medical history of the person, and signs and symptoms, other tests may be done as follow up to help diagnose the cause of anemia and to help guide treatment. sTfR helps to distinguish between anemia caused by iron deficiency or by inflammation or chronic illness.

## Soluble Transferrin Receptor (STfR)

Soluble transferrin receptors (sTfR) are proteins found in blood that can be elevated with iron deficiency. The sTfR test is primarily ordered to help distinguish between anemia that is caused by iron deficiency and anemia that is caused by inflammation or a chronic illness. It is not a routine test but may be ordered if other tests that evaluate the amount of iron in the body do not provide conclusive information.

Ferritin is usually the preferred test to evaluate stored iron, but it is an acute phase reactant, which means that it may be increased with inflammation or with chronic diseases such as autoimmune disorders, some cancers, and chronic infections. In these cases, ferritin may not be a good measure of stored iron. Since sTfR is not an acute phase reactant, it may be ordered as an alternative to ferritin if a chronic illness is present or suspected.

Cat#	Size	Type	Clone/Host	Isotype	Format
5362606*	1 mg	Mab	OBV 4	IgG1	Purified Unconjugated

\* A Sandwich assay can be built with this antibody as capture and detection at the same time

# Bone Metabolism

Bones are continuously undergoing a dynamic process of resorption and absorption known as bone metabolism. Signaling pathways on which bone metabolism rely include the action of several hormones, including Osteocalcin, PTH and Vitamin D.

Aggrecan (PG) is being investigated for its role in cartilage deterioration during joint injury, disease, and aging. COMP can be measured for the evaluation of aggressive joint destruction in arthritis. Cathepsin K is a marker of bone resorption.

## Aggrecan (PG)

Aggrecan (PG) is the predominant proteoglycan species in articular cartilage. It is composed of a core protein of 210 kDa to which over 100 chondroitin sulfate chains, about

20-50 keratan sulfate chains and O-linked as well as N-linked oligosaccharides are covalently attached. The core protein contains three distinct globular domains (G1-G3).

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5114616	1 mg	Mab	969D 4D11 2A9*	IgG1	Purified Unconjugated
5114612	1 mg	Mab	969D 4D11 2A9*	IgG1	Purified Biotin Conjugated
5114617	1 mg	Mab	969D 4D11 2A9*	IgG1	Purified F(ab)'2 Unconjugated
5314626	1 mg	Mab	1R1 14A6 3B2*	IgG1	Purified Unconjugated
5314627	1 mg	Mab	1R1 14A6 3B2*	IgG1	Purified F(ab)'2 Unconjugated

### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
5114618	1 mL	MAB HRP conjugate	5314626, 5314627	Liquid, pure conjugate
4114603	5.5 mL	MAB HRP conjugate	5314626, 5314627	Liquid, ready to use

## Cartilage Oligomeric Matrix Protein (COMP)

Levels of Cartilage Oligomeric Matrix Protein (COMP) in serum can be measured for the evaluation of aggressive joint destruction in arthritis. It was also presented as a biomarker of liver fibrosis, and has been found to be expressed in

tumor tissues from breast, prostate, and colon cancer, and is currently evaluated as an independent prognostic marker in these populations.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5362306	1 mg	Mab	OBV 2*	IgG1, Kappa	Purified Unconjugated
5162306	1 mg	Mab	OBV 3*	IgG1	Purified Biotin Conjugated

## Cathepsin K

It has been shown that cathepsin K plays a major role in the resorption of the bone matrix by osteoclasts. Cathepsin K

can also be considered a novel marker of obesity and a target for the inhibition of adipose mass growth.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5362806	1 mg	Mab	OBV 5	IgG2b	Purified Unconjugated

\* Matched pair



## Osteocalcin (OST)

Osteocalcin or bone Gla protein (B.G.P) is the major non-collagen protein of the bone matrix. It has a molecular weight of 5800 Da and contains 49 amino-acids, including 3 residues of gamma carboxyl glutamic acid. Osteocalcin is synthesized in the bone by the osteoblasts. After production, it is partly incorporated in the bone matrix and the rest is found in the blood circulation. The exact physiological function of osteocalcin is still unclear. A large number of studies show that the circulating levels of osteocalcin reflect the rate of bone formation.

## Clinical application

The determination of the blood levels of osteocalcin is valuable for:

- The identification of women at risk of developing osteoporosis
- Monitoring bone metabolism during the perimenopause and postmenopause
- Monitoring bone metabolism during hormone replacement therapy and treatment of premenopausal women with LH-RH agonists
- Monitoring bone metabolism in patients with growth hormone deficiency, hypothyroidism, hyperthyroidism, chronic renal failure

## Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5113806	1 mg	Mab	002/12 BD7*	IgG1, Kappa	Purified Unconjugated
5113817	1 mg	Mab	002/12 BD7*	IgG1, Kappa	Purified F(ab)'2 Unconjugated
5313806	1 mg	Mab	001/3 CE3 3H10*	IgG1, Kappa	Purified Unconjugated
5313808	1 mg	Mab	001/3 CE3 3H10*	IgG1, Kappa	Purified Biotin Conjugated

## Antigens & Conjugates

Cat#	Size	Type	Match with	Format
5113818	50 µL	MAB HRP conjugate	5313806, 5313808	Liquid, pure conjugate
4113822	400 µL	MAB HRP conjugate	5313806, 5313808	Liquid, concentrate
4113825	11 mL	Dilution buffer for 4113822	NA	Liquid, ready to use

## Parathyroid Hormone (PTH)

Human parathyroid hormone (hPTH) is a major physiological regulator of phosphocalcic metabolism. hPTH increases serum calcium concentrations by its actions on kidney (enhancing tubular Ca<sup>++</sup> reabsorption and phosphate excretion) and bone (stimulating osteoclastic activity and bone resorption). It indirectly affects intestinal absorption of Ca<sup>++</sup> by stimulating renal 1α-hydroxylation of 25 hydroxyvitamin D. The release of PTH is controlled in a negative feedback loop by the serum concentration of Ca<sup>++</sup>.

## Clinical application:

The measurement of intact hPTH is used to establish the diagnosis of primary hyperparathyroidism by demonstrating elevated serum levels of bioactive PTH. It allows documenting the occurrence of secondary hyperparathyroidism in patients with Vit.D deficiency, intestinal malabsorption, or renal failure. In this last situation, the absence of interference with the inactive carboxyl-terminal fragments is especially valuable. The specificity and high sensitivity of the assay also allows differentiating clearly low serum PTH levels in hypoparathyroidism or in tumor-induced hypercalcaemia.

## Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5114906	1 mg	Mab	77B 14H5 1C7	IgG1, Kappa	Purified Unconjugated
5314926	1 mg	Mab	OBP 1*	IgG1	Purified Unconjugated

## Antigens & Conjugates

Cat#	Size	Type	Match with	Format
5114918	100 µL	MAB HRP conjugate	-	Liquid, pure conjugate
4114803	11 mL	MAB HRP conjugate	-	Liquid, ready to use

\* Matched pair

## 1,25(OH)<sub>2</sub> Vitamin D

1,25(OH)<sub>2</sub> Vitamin D is the biologically active form of Vitamin D, and binds to the Vitamin D Receptor (VDR). It originates from the hydroxylation of 25OH Vitamin D, and its production is under the control of PTH. The measurement of 1,25(OH)<sub>2</sub> Vitamin D is essentially used in the assessment of Vitamin D status in patients with renal disease, but also in renal transplant recipients, in adults under 10H Vita-

min D treatment, in children under therapy known to affect bone mineral status, in children with bone tumors, and in the diagnosis of hypophosphatemic rickets/osteomalacia. Our 1,25(OH)<sub>2</sub> Vitamin D Monoclonal Antibodies recognized the two forms, D2 and D3, of the molecule, which is a must-have nowadays.

### Antibodies

Cat#	Name	Size	Type	Subtype	Clone/Host	Format
5319316	Monoclonal Antibody against 1,25(OH) <sub>2</sub> Vitamin D2/D3	1mg	Monoclonal Antibody <sup>(1)</sup>	Tail	283/C4 GF3 Mouse	Purified, Unconjugated
5319256	Monoclonal Antibody against 1,25(OH) <sub>2</sub> Vitamin D2/D3	1mg	Monoclonal Antibody <sup>(1)</sup>	Tail	EG4	Purified, Unconjugated

### Antigens & Conjugates

Cat#	Name	Size	Type	Subtype	Clone/Host	Format
5019220	1,25(OH) <sub>2</sub> Vitamin D antigen - carboxylic acid	1mg	Antigen/Conjugate <sup>(1)</sup>	Tail	NA	Purified, Carboxylic acid (COOH)
5019221	1,25(OH) <sub>2</sub> Vitamin D antigen - BSA	1mg	Antigen/Conjugate <sup>(1)</sup>	Tail	NA	Purified, BSA conjugate
5019503	1,25(OH) <sub>2</sub> Vitamin D antigen - amino	1mg	Antigen/Conjugate <sup>(1)</sup>	Tail	NA	Purified, Amino (NH <sub>2</sub> )
5019504	1,25(OH) <sub>2</sub> Vitamin D antigen - biotin	1mg	Antigen/Conjugate <sup>(1)</sup>	Tail	NA	Purified, Biotin conjugate

\*In 2009, DiaSource ImmunoAssays has patented Mouse Monoclonal Antibodies, based on a proprietary Vitamin D hapten, recognizing both 25OH Vitamin D3 and 25OH Vitamin D2.

(1) Matching 1,25(OH)<sub>2</sub> Vitamin D pairs.

## 25OH Vitamin D

25OH Vitamin D is produced from Vitamin D, in the liver, through the action of an enzyme. It represents the storage form of Vitamin D in the body, and is metabolized to the active 1,25(OH)<sub>2</sub> Vitamin D under the control of PTH. The measurement of 25OH Vitamin D is the best test to assess Vitamin D deficiency in the general and pathological population. It is also used to monitor Vitamin D supplementation, and to identify hypervitaminosis D.

Our 25OH Vitamin D Monoclonal Antibodies recognized the two forms, D2 and D3, of the molecule, which is a must-have nowadays.

In addition, we have developed a specific collection of Vitamin D analogues that pair with our antibodies and from other antibodies from the market.

Furthermore, DiaSource offers a wide panel of unique displacement solutions, mandatory to release 25OH Vitamin D from its binding proteins, that are compatible with most of the 25OH Vitamin D antibodies.

### Antibodies

Cat#	Name	Size	Type	Subtype	Clone/Host	Format
5319706	Monoclonal Antibody against 25OH Vitamin D2/D3*	1mg	Monoclonal Antibody <sup>(1)</sup>	Tail	LMBP 7013CB	Purified, Unconjugated
5319716	Monoclonal Antibody against 25OH Vitamin D2/D3*	1mg	Monoclonal Antibody <sup>(1)</sup>	Tail	LMBP 7012CB	Purified, Unconjugated
5319726	Monoclonal Antibody against 25OH Vitamin D2/D3*	1mg	Monoclonal Antibody <sup>(1)</sup>	Tail	LMBP 7011CB	Purified, Unconjugated
5319835	Polyclonal Antibody against 25OH Vitamin D2/D3	100µl	Polyclonal Antibody <sup>(1)</sup>	Tail	Rabbit	Crude

### Antigens & Conjugates

Cat#	Name	Size	Type	Subtype	Clone/Host	Format
5019700	Vitamin D derivative - Carboxylic acid	1mg	Antigen/Conjugate <sup>(1)</sup>	Tail	NA	Purified, Carboxylic acid (COOH)
5019701	Vitamin D derivative - BSA conjugate	1mg	Antigen/Conjugate <sup>(1)</sup>	Tail	NA	Purified, BSA conjugate
5019703	Vitamin D derivative - amino	1mg	Antigen/Conjugate <sup>(1)</sup>	Tail	NA	Purified, Amino (NH <sub>2</sub> )
5019708	Vitamin D derivative - biotin conjugate	1mg	Antigen/Conjugate <sup>(1)</sup>	Tail	NA	Purified, Biotin conjugate
5019502	Vitamin D antigen - 3-carboxylic acid	1mg	Antigen/Conjugate <sup>(2)</sup>	Position-3	NA	Purified, Carboxylic acid (COOH)
5019503	Vitamin D antigen - 3-amino	1mg	Antigen/Conjugate <sup>(2)</sup>	Position-3	NA	Purified, Amino (NH <sub>2</sub> )
5019504	Vitamin D antigen - 3-biotin	1mg	Antigen/Conjugate <sup>(2)</sup>	Position-3	NA	Purified, Biotin conjugate
3019702	Vitamin D Release Solution - 10 solutions screening kit	1 kit	Release Solution	NA	NA	Liquid, ready to use

\*In 2009, DiaSource Immunoassays has patented Mouse Monoclonal Antibodies, based on a proprietary Vitamin D hapten, recognizing both 25OH Vitamin D3 and 25OH Vitamin D2.

(1) Matching 1,25(OH)<sub>2</sub> Vitamin D pairs.

(2) Matching with 25OH Vitamin D antibodies - position-3, from the market.



## Free 25OH Vitamin D

25OH Vitamin D is a hydrophobic molecule, and circulates on the Vitamin D Binding Protein (VDBP) and Albumin. A tiny fraction is not bound to these binding proteins, and is called Free 25OH Vitamin D. The measurement of Free

25OH Vitamin D is a better marker of Vitamin D deficiency in conditions in which the concentration of VDBP is altered. This includes pregnancy, liver and renal disease, critical illness and proteinuria.

### Antibodies

Cat#	Name	Size	Type	Subtype	Clone/Host	Format
5319706	Monoclonal Antibody against 25OH Vitamin D2/D3*	1mg	Monoclonal Antibody <sup>(1)</sup>	Tail	LMBP 7013CB	Purified, Unconjugated
5319716	Monoclonal Antibody against 25OH Vitamin D2/D3*	1mg	Monoclonal Antibody <sup>(1)</sup>	Tail	LMBP 7012CB	Purified, Unconjugated
5319726	Monoclonal Antibody against 25OH Vitamin D2/D3*	1mg	Monoclonal Antibody <sup>(1)</sup>	Tail	LMBP 7011CB	Purified, Unconjugated
5319835	Polyclonal Antibody against 25OH Vitamin D2/D3	100µl	Polyclonal Antibody <sup>(1)</sup>	Tail	Rabbit	Crude

### Antigens & Conjugates

Cat#	Name	Size	Type	Subtype	Clone/Host	Format
5019700	Vitamin D derivative - Carboxylic acid	1mg	Antigen/Conjugate <sup>(1)</sup>	Tail	NA	Purified, Carboxylic acid (COOH)
5019701	Vitamin D derivative - BSA conjugate	1mg	Antigen/Conjugate <sup>(1)</sup>	Tail	NA	Purified, BSA conjugate
5019703	Vitamin D derivative - amino	1mg	Antigen/Conjugate <sup>(1)</sup>	Tail	NA	Purified, Amino (NH <sub>2</sub> )
5019708	Vitamin D derivative - biotin conjugate	1mg	Antigen/Conjugate <sup>(1)</sup>	Tail	NA	Purified, Biotin conjugate

\*In 2009, DiaSource Immunoassays has patented Mouse Monoclonal Antibodies, based on a proprietary Vitamin D hapten, recognizing both 25OH Vitamin D3 and 25OH Vitamin D2.

(1) Matching 1,25(OH)<sub>2</sub> Vitamin D pairs.

# Cancer markers

Tumour or cancer markers are produced either by the tumour itself or by the body in response to the presence of cancer or certain non-cancerous benign conditions. AFP is used in the follow-up management of patients undergoing cancer therapy. Calcitonin helps in

the diagnosis and follow-up of medullary thyroid carcinoma and of MEN type II. CEA is used in the monitoring of colorectal cancer and selected other cancers. Free bhCG is an aid in the diagnosis of testicular tumors, ovarian germ cell tumors, and teratomas, mainly.

## Alpha-Fetoprotein (AFP)

α-Fetoprotein (AFP) is a 70.000 Da MW oncofetal protein synthesized by liver parenchymal cells, yolk sac and gastrointestinal tract of human fetus. The peak of AFP concentration occurs between weeks 12 and 15 of gestation. After birth AFP concentration in plasma rapidly decreases to less than 5 IU/ml. AFP levels are elevated in the following clinical situation:

The main clinical applications of measurements of AFP are found in the monitoring of cancer following treatment. However, AFP measurement may also be of clinical interest in monitoring of pregnancy when applied to serum or amniotic fluid.

- Cancer
- Hepatocellular carcinoma
- Teratocarcinomas and embryonal cell carcinoma of testis and ovaries
- Yolk sac tumor
- Other cancers (less than 5 %)
- Viral diseases
- Acute hepatitis (usually < 100 IU/ml)
- Chronic active hepatitis (usually < 100 IU/ml)

## Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5100806	1 mg	Mab	89B 2/21 G3*	TBD	Purified Unconjugated
5300826	1 mg	Mab	89B 2/23H5 3H3 2C10 BG7*	IgG1, kappa	Purified Unconjugated
5300828	1 mg	Mab	89B 2/23H5 3H3 2C10 BG7*	IgG1, kappa	Purified Biotin Conjugated

## Calcitonin (CT)

Calcitonin (CT) is a 32 amino acid peptide hormone secreted by the para-follicular C-cells of the thyroid gland under serum calcium control. After acute administration this peptide acts as a potent hypocalcemic and hypophosphatemic hormone by increasing renal calcium clearance and reducing bone resorption. However, its precise physiological role in bone metabolism is not yet fully understood. Various forms of CT may be detected in blood samples, including a CT monomer, an oxidized monomer, a dimer, higher molecular weight forms, and possibly precursor of CT. The concentrations of these peptides vary with clinical status, renal function and tissular origin of CT (normal or ectopic production). Medullary thyroid carcinoma (MTC) is a malignant tumor, developed from the C-cells, secreting calcitonin in large excess. This disease occurs either as a sporadic (80%) or a familial (20%) form, which is transmitted as an

autosomal dominant gene or as a component of multiple endocrine neoplasia (IIb). Moderate hypercalcitoninemia is also observed in pregnancy, pernicious anaemia, renal failure and during the neonatal period. Preferably, monomer form of CT is detected in this assay.

### The measurement of CT is used for:

- Diagnosis of medullary thyroid carcinoma (MTC)
- Follow up of malignant tumors, to check the success of surgery and to monitor for recurrence
- Diagnosis of the preclinical cases of the familial forms of MTC (MEN II or Sipple syndrome) by the use of stimulation tests (calcium or pentagastrin)
- Study of the pathophysiology of the calcium-phosphate and bone metabolism

\* Matched pair

## Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5104206	1 mg	Mab	379A 6H11 3E4	IgG2a	Purified Unconjugated
5104236	1 mg	Mab	IF2 3G11 AC9*	IgG1, kappa	Purified Unconjugated
5104237	1 mg	Mab	IF2 3G11 AC9*	IgG1, kappa	Purified F(ab)'2 Unconjugated
5304206	1 mg	Mab	379A 3B1 1C10	IgG1	Purified Unconjugated
5304226	1 mg	Mab	CB1*	IgG1, kappa	Purified Unconjugated
5304228	1 mg	Mab	CB1*	IgG1, kappa	Purified Biotin Conjugated

## Antigens & Conjugates

Cat#	Size	Type	Match with	Format
5104238	50 µL	MAB HRP conjugate	5304226, 5304228	Liquid, pure conjugate
4104223	125 µL	MAB HRP conjugate	5304226, 5304228	Liquid, concentrate
4104225	6 mL	Dilution buffer for 4104223	NA	Liquid, ready to use

## Carcino Embryonic Antigen (CEA)

CEA is a 200.000 Daltons oncofetal glycoprotein expressed by normal tissues during the first six months of fetal life. Later on the expression of CEA by normal cells becomes largely repressed except in cancer tissues of various cell types, which may secrete large amounts of this oncofetal protein into the circulation. Widely accepted as a useful adjunct for monitoring the course of cancer diseases, CEA should not be regarded as a tumor-specific marker because it is still secreted in small amounts by certain normal tissues during adult life, with small serum level increases in case of benign

diseases such as cirrhosis, hepatitis, inflammatory bowel diseases, renal failure and in heavy smokers. Therefore, the measurement of CEA serum concentration for diagnostic purposes must be considered with great care.

### Clinical application:

- Monitoring of cancer diseases
- Diagnostic adjunct in cancer
- Prognostic adjunct in cancer

## Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5103306	1 mg	Mab	88B II35F10 C4*	IgG1	Purified Unconjugated
5103317	1 mg	Mab	88B II35F10 C4*	IgG1	Purified F(ab)'2 Unconjugated
5303306	1 mg	Mab	4D4 A4*	IgG1	Purified Unconjugated

\* Matched pair



## Chorionic Gonadotropin Hormone (Free $\beta$ -hCG)

The chorionic gonadotropic hormone is synthesised by the syncytiotrophoblast of the placenta all along the pregnancy and is released in the blood flow as soon as the 9th day following ovulation. The hCG has biologic characteristics similar to the LH. During pregnancy, this placental hormone stimulates the remaining corpus luteum that secretes oestrogen and progesterone for the first three months of the pregnancy.

### Clinical application:

**Diagnostic and monitoring test in pregnancy:** hCG and its free subunits  $\alpha$  and  $\beta$  appear in the serum and urine of pregnant women about 9 days following ovulation. The Free  $\beta$ hCG level then increases rapidly to reach a peak between the 8th and the 12th week.

**Tumour marker test in trophoblastic tumours:** hydatiform moles and choriocarcinomas may secrete large amounts of native hCG and its two free subunits  $\alpha$  and  $\beta$  into the peripheral blood circulation

**Tumour marker test in non-trophoblastic cancers:** 10 to 15 % of the breast, lung, and digestive tract cancers release hCG and/or either of its two constitutive subunits  $\alpha$  and  $\beta$ .

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5110006	1 mg	Mab	981A 2G7	IgG1, Kappa	Purified Unconjugated
5110017	1 mg	Mab	981A 2G7	IgG1, Kappa	Purified F(ab)'2 Unconjugated
5310036	1 mg	Mab	979A 3E8 G4 AC11*	IgG1, Kappa	Purified Unconjugated
5310038	1 mg	Mab	979A 3E8 G4 AC11*	IgG1, Kappa	Purified Biotin Conjugated
5110026	1 mg	Mab	981A 3G6*	IgG1, Kappa	Purified Unconjugated
5110027	1 mg	Mab	981A 3G6*	IgG1, Kappa	Purified F(ab)'2 Unconjugated

## Chromogranin A

Chromogranin A is an acidic protein located in secretory vesicles of neurons and endocrine cells. It is a precursor to several functional peptides which negatively modulate the neuroendocrine function of releasing or nearby cells (autocrine and paracrine). As CGA is a useful biomarker

throughout the disease course of the patient, CGA assay are used for investigation in an extensive amount of clinical trials. CGA is for instance used in the diagnosis and monitoring of carcinoid tumors and other neuroendocrine tumors.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5137906	1 mg	Mab	1H6	IgG1	Purified Unconjugated
5337926	1 mg	Mab	2E8	IgG1	Purified Unconjugated

### Antigens & Conjugates

Cat#	Size	Type	Clone/Host	Isotype	Format
5137918	0,1ml	Mab HRP Conjugated	N/A	N/A	Purified HRP Conjugated

\* Matched pair

# Cardiovascular and Salt balance

ACTH is used in the differential diagnosis of hypercortisolism and hypocortisolism, e.g. caused by Cushing or Addison disease, and certain tumours. Aldosterone and Renin are typically measured together, and their ratio is the most sensitive

means of differentiating primary from secondary causes of hyperaldosteronism. Angiotensin I is involved in hypertension, and NT-ProANP is a marker of heart failure and sepsis.

## Adrenocorticotrophic Hormone (ACTH)

Adrenocorticotrophic hormone (ACTH or corticotrophin) is a polypeptide hormone synthesised (from POMC, pro-opiomelanocortin) and secreted from corticotropes in the anterior lobe of the pituitary gland in response to the hormone corticotrophin-releasing hormone (CRH) released by the hypothalamus. It consists of 39 amino acids with a molecular weight of 4540 Da. ACTH regulates steroid synthesis by the adrenal cortex. ACTH stimulates the secretion of cortisol from the adrenal glands. Cortisol and other glucocorticoids increase glucose production,

inhibit protein synthesis and increase protein breakdown, stimulate lipolysis, and affect immunological and inflammatory responses. Too much ACTH can result in overproduction of cortisol which can cause Cushing's syndrome. Too much ACTH can be caused by benign pituitary adenoma. Other causes of Cushing's syndrome (too much cortisol) include ectopic production of ACTH as encountered in some lung tumors and benign and malignant adrenal tumors. The most common cause of Cushing's syndrome is exogenous ingestion of glucocorticoids.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5300696	1 mg	Mab	180/A2 LF3/BC8*	IgG1, Kappa	Purified Unconjugated
5100696	1 mg	Mab	OBP 2*	IgG1, Kappa	Purified Unconjugated

## Aldosterone

Aldosterone stimulates sodium transport across cell membranes, particularly in the distal renal tubule where sodium is exchanged for hydrogen and potassium. Secondly, aldosterone is important in the maintenance of blood pressure and blood volume.

Measurement of Aldosterone is used for investigation of primary aldosteronism (eg, adrenal adenoma/carcinoma and adrenal cortical hyperplasia) and secondary aldoster-

onism (renovascular disease, salt depletion, potassium loading, cardiac failure with ascites, pregnancy, Bartter syndrome).

Aldosterone and Renin or Plasma Renin Activity (PRA) are often measured concomitantly. A high ratio of serum aldosterone to plasma renin activity (PRA) in ng/mL per hour, is a positive screening test result, a finding that warrants further testing.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5331235	1 mL	PoAb	Rabbit	NA	Crude

### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
1302615-V	2 mg	Antigen - COOH	5331235	Solid
1302616	2 mg	Antigen - BSA	5331235	Liquid

\* Matched pair

## Angiotensin I

Angiotensin is a peptide hormone that causes vasoconstriction and an increase in blood pressure. It is part of the renin-angiotensin system, which is a major target for drugs that raises blood pressure. Angiotensin also stimulates the release of aldosterone, which also drives blood pressure up.

Angiotensin I is formed by the action of renin on angiotensinogen. Therefore the measurement of Angiotensin I is also a measurement of the Plasma Renin Activity (PRA).

Both terminologies are often used to design the same assay.

Angiotensin I is further converted into Angiotensin II and III, the low cross-reactivity of the Antibody for these two metabolites is therefore critical.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5353616	1 mg	PoAb	Rabbit	NA	Purified Unconjugated

### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
1302619	2 mg	Antigen	5353616	Lyophilized powder

## N-Terminal Proatrial Natriuretic Peptide (NT-ProANP)

NT-ProANP serves as a helpful marker for the diagnosis of pediatric heart failure and follow-up of treatment and after operation in children.

NT-proANP is also discussed as valuable marker for sepsis, or risk stratification in heart failure.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5362406	100 µg	PoAb	Sheep	NA	Purified Unconjugated

## Renin

Renin is a proteolytic acidic enzyme produced and secreted by the juxtaglomerular cells. It cleaves angiotensinogen into angiotensin I (inactive), which ultimately leads to the production of angiotensin II (active). Therefore, renin, which has a limiting effect on the production of angiotensin, is a key-factor in the regulation of arterial pressure and hydro-sodic metabolism. As most enzymes which act outside of the cells in which they are synthesized, renin exists in both

inactive and active forms. Inactive renin (prorenin) which is found in plasma, amniotic fluid and in the kidney, can be activated in different ways (cryoactivation, acidification or partial proteolysis) which expose the active site of the enzyme. Inactive renin can account for up to 90 % of the total renin in the circulation. However, it is the active renin which provides the medium through which biological activity takes place.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5115306	1 mg	Mab	244/1 RH12*	IgG1, Kappa	Purified Unconjugated
5315356	1 mg	Mab	257/A5 GC10 AH4 BA7*	IgG1, Kappa	Purified Unconjugated
5315366	1 mg	Mab	244/2 OE6*	IgG1, Kappa	Purified Unconjugated
5315367	1 mg	Mab	244/2 OE6*	IgG1, Kappa	Purified F(ab') <sub>2</sub> Unconjugated

### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
5115318	50 µL	MAB HRP conjugate	5315366, 5315367	Liquid, pure conjugate
4115303	50 µL	MAB HRP conjugate	5315366, 5315367	Liquid, concentrate
4115305	11 mL	Dilution buffer for 4115303	NA	Liquid, ready to use

\* Matched pair

## Vasoactive Intestinal Peptide

Vasoactive intestinal peptide (VIP) is a linear polypeptide containing 28 amino acid residues and is structurally related to secretin and to other members of the secretin family. VIP stimulates water and bicarbonate secretion by the pancreas. VIP possesses the capacity to relax smooth muscle. VIP

is believed to play crucial roles in the regulation of intestinal motility and intestinal epithelial ion and water transport. Increased plasma levels of VIP have been reported in patients with the WDHA syndrome (water, diarrhoea, hypokalemia and achlor hydria) and also in patients with cirrhosis.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5359726	1 mL	Mab	8L5 10Q8	IgG1, Kappa	Purified unconjugated

# Diabetes and Metabolism

A low Adiponectin result might suggest Type 2 diabetes mellitus or metabolic syndrome. Circulating FABP4 levels are associated with several aspects of metabolic syndrome and cardiovascular disease. Insulin is used in the management of diabetes and in the diagnosis of insulinoma. The measurement of Leptin can be used in the management of obesity.

**Type 1 is due to autoimmune destruction of the insulin-producing cells**

**Type 2 and gestational diabetes are due to insulin resistance by tissues**

Obesity is a condition in which the natural energy reserve, stored in the fatty tissue of humans and mammals, is increased to a point where it is a risk factor for certain health conditions or increased mortality. Obesity develops from the interaction of individual biology and the environment. Excessive body weight has been shown to correlate with various diseases, particularly cardiovascular disease, diabetes mellitus type 2, sleep apnea, and osteoarthritis. Obesity is both an individual clinical condition and is increasingly viewed as a serious public health problem.

## Adiponectin

Adiponectin is a 30kDa protein which percentage in serum proteins is 0.01%. It is mainly synthesized by Adipocytes, but also muscle cells and hepatocytes have the ability to synthesize Adiponectin. Until now, IGF-I is the only known natural inducer of the synthesis. It consists of a Collagen-like N-terminal and a globular C-terminal domain. In vivo Adiponectin appears with different oligomers. Beside the trimer and dimer also high molecular multimers exist (1-3). Up to now two different receptors are known, both receptors are ubiquitarily expressed, though the distribution in the tissues varies.

The Adiponectin Receptor 1 (AdipoR1) is especially in muscle- and AdipoR2 in liver tissue synthesized. The significance for the human organism is not clear until now. First studies show, that adiponectin correlates negatively with

BMI and thus it could have relevance for the energy metabolism for example through the regulation of fatty acid oxidation. Beside the correlation with BMI, Adiponectin level is associated with the Insulin-Resistance and so also linked with Type II Diabetes.

Adiponectin is associated also with glucose- and lipometabolism. Furthermore it is involved in inflammatory processes and therewith it is of importance for appearance of arteriosclerosis and coronaritis, thus the determination of Adiponectin level in plasma could serve to estimate the risk of coronary disease. Beside this Adiponectin influences further physiological processes as for example the angiogenesis.

## Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5300726	1 mg	Mab	236/1 DC12	IgG1, Kappa	Purified Unconjugated
5300746	1 mg	Mab	236/1 GE9	IgG2b, Kappa	Purified Unconjugated
5362016	1 mg	Mab	OBV 1	IgG1, Kappa	Purified Unconjugated
5362006*	100 µg	PoAb	Sheep	NA	Purified Unconjugated

\* A Sandwich assay can be built with this antibody as capture and detection at the same time

## Fatty Acid-Binding Protein 4 (FABP4)

Fatty acid-binding protein 4 (FABP4), known as adipocyte FABP (A-FABP) or aP2, plays important roles in the development of insulin resistance and atherosclerosis in relation to metabolically driven low-grade and chronic inflammation, referred to as 'metaflammation'. Circulating FABP4 levels

are associated with several aspects of metabolic syndrome and cardiovascular disease. Pharmacological modification of FABP4 function would be novel therapeutic strategies for several diseases, including obesity, diabetes mellitus, atherosclerosis and cardiovascular disease.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5362106**	100 µg	PoAb	Sheep	NA	Purified Unconjugated

## Ghrelin

Ghrelin is a small peptide hormone (28 Amino acids) primarily produced in the stomach and, to a lesser extent, in other tissues throughout the body. Often referred to as the "hunger hormone" ghrelin plays a crucial role in regulating appetite and energy balance. Ghrelin levels can be a valuable diagnostic tool in several medical contexts such as

eating disorders, and metabolic conditions like diabetes and obesity. Elevated ghrelin levels are often associated with conditions like Prader-Willi syndrome, a genetic disorder characterized by insatiable appetite and obesity, and can aid in their diagnosis.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5343306	1 mL	Mab	4L13 1X3*	IgG1, Lambda	Purified unconjugated
5143306	1 mL	Mab	7Q9 2Z5*	IgG2b, Kappa	Purified unconjugated

## Glucagon

Glucagon is a single-chain polypeptide composed of 29 amino acids produced and secreted by the alpha cells of the pancreatic islets of Langerhans. Glucagon acts in opposition to insulin, the well-known hormone responsible for lowering blood glucose levels. This delicate balance between insulin and glucagon is essential for regulating blood sugar levels and ensuring the body has a constant

source of energy. Measuring glucagon levels in the blood is useful for diagnosing and managing diabetes, investigating hypoglycemia causes, identifying gastrointestinal disorders like glucagonoma, assessing pancreatic islet cell function, conducting glucagon stimulation tests, or monitoring post-surgical outcomes.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5108806	1 mL	Mab	7A2 13D2*	IgG1, Kappa	Purified unconjugated
5308816	1 mL	Mab	2A6 9K10*	IgG1, Kappa	Purified unconjugated

\* Matched pairs

\*\* A Sandwich assay can be built with this antibody as capture and detection at the same time



## Insulin

Insulin, a polypeptide hormone with a molecular weight of 5800, is secreted by the beta cells of the islets of Langerhans from the pancreas. Insulin possesses a wide spectrum of biological actions. It stimulates cellular glucose uptake, glucose oxydation, glycogenesis, lipogenesis, proteogenesis and the formation of DNA and NA. Insulin plays a key role in the regulation of plasma glucose levels (hepatic output inhibition, stimulation of peripheral glucose utilisation).

The resulting hypoglycemic effects of insulin are counterbalanced by hormones with hyperglycemic effects (glucagon, growth hormone, cortisol, epinephrine). Insulin secretion is mainly controlled by the plasma glucose levels: hyperglycemia induces a prompt and important increase in circulating insulin levels.

Neural influences, as well as various metabolic and hormonal factors (amino acids, glucagon, gastrointestinal hormone) also participate to the control of insulin secretion. Type I (insulin dependent: "juvenile") diabetes is due to a destruction of the beta cells, with a consequence of absolute lack of insulin.

In type II (noninsulin-dependent: "maturity onset") diabetes, insulin resistance may play an important role; however after several years of evolution, beta-cells failure may occur, leading to a relative insulinopenia requiring, in some cases, insulin administration. Insulin resistance is associated with high circulation levels of the hormone.

The most common case of insulin resistance is represented by obesity. Various endocrinopathies (acromegaly,

Cushing syndrome) as well as rare cases of insulin receptor defects or cases with anti-insulin receptor antibodies are associated with glucose intolerance or even diabetes due to insulin resistance.

The determination of plasma insulin levels is an important parameter in the diagnosis of hypoglycemia. Insulin levels are high in cases of insulinoma (beta-cell tumor). Functional postprandial hypoglycemia may also be associated with inappropriate insulin release to carbohydrate intake.

### Insulin levels are determined either in the fasting state or during dynamic test:

- Stimulation test: carbohydrate rich meal, oral glucose tolerance test (OGTT), arginin infusion, tolbutamide or other sulfonylureas administration
- Inhibition test: fasting, somatostatine infusion

### Clinical application of insulin determination:

- Determination of the beta-cell reserve during glucose tolerance test or after a carbohydrate rich meal, as a guide for the instauration of insulin therapy
- Contribution to the diagnosis of insulin and non-insulin-dependent diabetes
- Characterisation and follow-up of states of glucose intolerance
- Diagnosis and study of cases of insulin resistance
- Diagnosis of insulinoma and other causes of hypoglycemia

## Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5112526	1 mg	Mab	336F 20B11 AF2 BA4*	IgG1	Purified Unconjugated
5312506	1 mg	Mab	86/A 2/5E4*	IgG1	Purified Unconjugated
5312508	1 mg	Mab	86/A 2/5E4*	IgG1	Purified Biotin Conjugated

## Antigens & Conjugates

Cat#	Size	Type	Match with	Format
5112518	100 µL	MAB HRP conjugate	5312506, 5312508	Liquid, pure conjugate
4112503	6 mL	MAB HRP conjugate	5312506, 5312508	Liquid, ready to use

\* Matched pairs

## Leptin

Leptin, the product of the ob gene, is a hormone secreted by adipocytes. Animals with mutations in the ob gene are obese, diabetic and have reduced activity. Administration of recombinant leptin to these animals decreases food intake and causes weight loss. In humans, this type of mutation has not been found. Human leptin cDNA encodes a 167 amino acid non-glycosylated protein includ-

ing a 21 AA signal peptide, which is cleaved to give mature human leptin. The human receptor for leptin (OB-R) has been identified as a 1144 amino acid transmembrane glycoprotein. It is expressed in the choroid plexus and in the hypothalamus. Leptin is implicated in an increasing number of endocrine regulations including adiposity, satiety, energy homeostasis, puberty and fertility).

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5122816	1 mg	Mab	A130D 1E9 1H6*	IgG1, Kappa	Purified Unconjugated
5122817	1 mg	Mab	A130D 1E9 1H6*	IgG1, Kappa	Purified F(ab)'2 Unconjugated
5322826	1 mg	Mab	A130D 1H6 2B9 BE8*	IgG2a, Kappa	Purified Unconjugated
5322836	1 mL	Mab	8D3 14D7*	IgG1, Kappa	Purified unconjugated
5322846	1 mL	Mab	13A12 11U7	IgG2b, Kappa	Purified unconjugated
5122826	1 mL	Mab	13O2 7H10*	IgG1, Kappa	Purified unconjugated

### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
5122818	50 µL	MAB HRP conjugate	5322826	Liquid, pure conjugate
4122823	11 mL	MAB HRP conjugate	5322826	Liquid, ready to use

\* Matched pairs

# Fertility

In women, different hormones can be measured in order to identify the causes of infertility, and/or to monitor pregnancy or IVF. This is the case of hCG, LH, FSH, Progesterone, estrogens, such as Estradiol and Estriol, Testosterone, and Prolactin. The latter two are also used to diagnose fertility problems in men.

## Chorionic Gonadotropin (hCG)

hCG is a glycoprotein synthesised by the syncytiotrophoblast of the placenta throughout pregnancy. hCG-molecular weight 37.9 kDa - comprises two subunits. The hCG  $\alpha$  subunit -molecular weight 14.9 Kda - is chemically similar to the  $\alpha$  subunits of FSH, LH and TSH hormones. The hCG  $\beta$  subunit molecular weight 23.0 kDa - has a structure similar to that of the LH  $\beta$  subunit, differing by only a few epitopes. hCG has biological characteristics similar to LH.

During pregnancy, hCG stimulates the remaining corpus luteum and the placental tissue to secrete the various steroid hormones.

In addition to its stimulating action on the luteal and placental tissue, hCG, by crossing the placenta, is essential to differentiate the genital tract of the fetus, which occurs around the 7th week of pregnancy.

### Clinical applications:

- Diagnostic and monitoring test in pregnancy hCG and its free subunits  $\alpha$  and  $\beta$  appear in the serum and urine of pregnant women about 9 days following ovulation. The hCG level then increases rapidly to reach a peak between the 8th and the 12th week.
- Tumour marker test in trophoblastic tumours
- Hydatiform moles and choriocarcinomas may secrete large amounts of native hCG and its two free subunits  $\alpha$  and  $\beta$  into the peripheral blood circulation
- Tumour marker test in non-trophoblastic cancers: 10 to 15 % of the breast, lung, and digestive tract cancers release hCG and/or either of its two constitutive subunits  $\alpha$  and  $\beta$

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5309806	1 mg	Mab	100H 8/2F1 3C6	IgG1 lambda	Purified Unconjugated
5309808	1 mg	Mab	100H 8/2F1 3C6	IgG1 lambda	Purified Biotin Conjugate

## Estradiol (E2)

17-beta-estradiol (E2) is a C-18 steroid hormone (molecular weight 272.4 Da) produced mainly by the ovary and placenta, and in small amounts by adrenals and testes. Estradiol is in equilibrium with estrone, which can be converted to estriol by the liver and placenta.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5306235	100 $\mu$ L	PoAb	Rabbit	NA	Crude
5306255	100 $\mu$ L	PoAb	Rabbit	NA	Crude
5306275	100 $\mu$ L	PoAb	Rabbit	NA	Crude
5306286	1 mg	Mab	294/4 BC7	IgG1, kappa	Purified Unconjugated

### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
5006200	1 mg	Antigen - COOH	5306235, 5306255, 5306286	Solid
5106218	100 $\mu$ L	Steroid HRP conjugate	5306235, 5306255, 5306286	Liquid, pure conjugate
4106203	500 $\mu$ L		5306235, 5306255, 5306286	Liquid, concentrate
4106205	6 mL	Dilution buffer for 4106203	NA	Liquid, ready to use

## Estriol (E3)

Estriol (also oestriol or E3) is one of the three main estrogens produced by the human body. Estriol is only produced in significant amounts during pregnancy as it is made by the placenta from 16-hydroxydehydroepiandrosterone sulfate (16-OH DHEAS), an androgen steroid made in the fetal liver and adrenal glands. The human placenta produces pregnenolone and progesterone from circulating cholesterol.

Pregnenolone is converted in the fetal adrenal gland into dehydroepiandrosterone (DHEA), a C19 steroid, then subsequently sulfonated to dehydroepiandrosterone sulfate (DHEAS). DHEAS is converted to 16-OH DHEAS in the fetal liver. The placenta converts 16-OH DHEAS to estriol, and is the predominant site of estriol synthesis.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5306406	1 mg	Mab	59D 10/13D11	IgG1	Purified Unconjugated

### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
1302614-V	2 mg	Antigen - COOH	5306406	Solid

## Follicle stimulating hormone (FSH)

The measurement of LH and FSH concentrations in serum is essential for investigating fertility and especially disorders of the hypothalamic/pituitary/gonadal axis. Both LH and FSH are secreted by the basophil cells of the anterior pituitary as a result of gonadotropin releasing hormone (GnRH) secretion from hypothalamic cells.

In adults, LH and FSH hormones control gonadal functions; mainly gametogenesis and steroid secretion. Circulating levels of FSH are controlled by a negative feedback effect on the hypothalamus by steroidal hormones and gonadal peptides.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5108406	1 mg	Mab	1D8 4E9 1C10*	IgG1	Purified Unconjugated
5108417	1 mg	Mab	1D8 4E9 1C10*	IgG1	Purified F(ab)'2 Unconjugated
5308426	1 mg	Mab	96B 4/5H10 2C5 AF7*	IgG1	Purified Unconjugated

## Luteinizing hormone (LH)

Both LH and FSH are secreted by the basophil cells of the anterior pituitary as a result of gonadotropin releasing hormone (GnRH) secretion from hypothalamic cells. In adults, LH and FSH hormones control gonadal functions; mainly gametogenesis and steroid secretion.

### Clinical applications:

The measurement of LH and FSH concentrations in serum is essential for investigating fertility and especially disorders of the hypothalamic/pituitary/gonadal axis.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5113146	1 mg	Mab	1/9G7 CA10*	IgG1	Purified Unconjugated
5113147	1 mg	Mab	1/9G7 CA10*	IgG1	Purified F(ab)'2 Unconjugated
5313146	1 mg	Mab	90C 1/4A11 2D7 AE6*	IgG1, Kappa	Purified Unconjugated
5113106	1 mg	Mab	90C I2D7 1D9	TBD	Purified Unconjugated
5313106	1 mg	Mab	90D II22E2 2H4	TBD	Purified Unconjugated

\* Matched pair

## Placental lactogen (hPL)

Human Placental Lactogen Protein (hPL) is a dimer of two polypeptide chains of equivalent weight (19.000) with lactogenic, luteotropic and growth activities. hPL, which is produced by trophoblastic cells of the normal placenta or by trophoblastic tumor tissue, has an amino acid composition quite similar to that of hGH, and to a lesser extent to that of prolactin. hPL becomes detectable in serum from about

6th week of pregnancy: later on hPL levels in serum increase progressively throughout pregnancy to reach a plateau of 2-10 µg/ml by the 34th week reflecting directly the growth of the placental tissue. Because of its short plasma half-life ( $\pm$  20 minutes), hPL becomes undetectable in the serum 4 hours after delivery.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5311406	1 mg	Mab	105F 6/4C8**	IgG1	Purified Unconjugated
5311408	1 mg	Mab	105F 6/4C8 + 105F 6/6A3	IgG1	Purified Biotin Conjugated
5311426	1 mg	Mab	105F 6/6A3**	IgG1	Purified Unconjugated

## Progesterone

Progesterone is an endogenous steroid and progestogen sex hormone involved in the menstrual cycle, pregnancy, and embryogenesis of humans and other species. Progesterone has a variety of important functions in the body.

It is also a crucial metabolic intermediate in the production of other endogenous steroids, including the sex hormones and the corticosteroids, and plays an important role in brain function as a neurosteroid.

### Antibodies

Cat#	Size	Type	Clone	Isotype	Format
5314506	1 mg	Mab	OBP 4	IgG1, kappa	Purified Unconjugated

### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
1302627-V	2 mg	Antigen - COOH	5314506	Solid

## Prolactin (PRL)

Prolactin (PRL) is a polypeptide hormone (molecular weight 20,000 Da) secreted by the pituitary gland, which plays a key role in the development of the mammary gland, the production and secretion of milk and the control of male and female gonadal functions. Prolactin secretion is under hypothalamic control exerted directly by dopamine, several prolactin releasing factors (PRF) and perhaps VIP (vasoactive intestinal polypeptide) or a closely related peptide.

TRH also acts directly at the pituitary level to stimulate prolactin release but its physiological role in the control of prolactin secretion has not been established yet. Several neuroendocrine factors, involving serotonergic or noradrenergic pathways are also involved in the control of prolactin secretion.

The plasma concentration of prolactin increases in various

physiological situations such as stress, pregnancy and lactation. Physiological levels fluctuate according to a nycthemeral rhythm, a significant rise being observed at night. Drugs with anti-dopamine activity (psychotropic agents) and ovulatory suppressants, increase prolactin secretion.

### Clinical applications:

**Prolactinoma:** circulating prolactin levels are elevated in patients with a prolactin secreting pituitary adenoma. Amenorrhea and impotence are characteristic clinical symptoms in such cases

**Other pituitary diseases:** increased prolactin levels are also observed in 5% to 20% of patients with acromegaly and when pituitary control by the hypothalamus is suppressed (pituitary stalk section). Decreased PRL levels

\*\* Can be used alone or as a 50/50 mixture

may be observed in cases of complete destruction of the pituitary as in Sheehan's syndrome.

**Galactorrhea and amenorrhea:** the measurement of the prolactin levels in serum is a useful test in the differential diagnosis of galactorrhea and amenorrhea.

#### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5114426	1 mg	Mab	1/3G6 1G10 2C10 BA5*	IgG1	Purified Unconjugated
5314426	1 mg	Mab	1/5C4 2D5 BB10*	IgG2a , Kappa	Purified Unconjugated

#### Antigens & Conjugates

Cat#	Size	Type	/	Match with	Format
1302106-v	100 ug	Native antigen		pair 514426/5314426	Powder

#### Testosterone

Testosterone is the major androgenic hormone. It is responsible for the development of the male external genitalia and secondary sexual characteristics. In females, its main role is as an estrogen precursor. In both genders, it also exerts anabolic effects and influences behavior. Measurement of total testosterone is often sufficient for diagnosis, particularly if it is combined with measurements of LH and

follicle-stimulating hormone (FSH). However, these tests may be insufficient for diagnosis of mild abnormalities of testosterone homeostasis, particularly if abnormalities in SHBG function or levels are present. Additional measurements of free testosterone or bioavailable testosterone are recommended in this situation. This antibody can be used in both total and free Testosterone assays.

#### Antibodies

Cat#	Size	Type	Clone	Isotype	Format
5317016	1 mg	Mab	OBP 3	IgG1	Purified Unconjugated
1302535-V	100 µL	PoAb	Rabbit	NA	Crude

#### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
1302626-V	2 mg	Antigen - COOH	5317016, 1302535-V	Solid

#### Free Testosterone

Testosterone is a hydrophobic molecule, and circulates on the binding proteins SHBG, Albumin and CBG. About 2-3% circulates in the free, unbound, form. As Free Testosterone diffuses through cell membranes, to act on its specific receptors, measuring this fraction is sometimes superior to the assessment of Total Testosterone.

The measurement of Free Testosterone is recommended in men whose Total Testosterone concentrations are in the lower end of the normal range and in men with conditions that make Total Testosterone measurements less reliable. E.g., accurate determination of Free Testosterone values is central to an accurate diagnosis of hypogonadism.

#### Antibodies

Cat#	Size	Type	Clone	Isotype	Format
5317016	1 mg	Mab	OBP 3	IgG1	Purified Unconjugated
1302535-V	100 µL	PoAb	Rabbit	NA	Crude

#### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
1302626-V	2 mg	Antigen - COOH	5317016, 1302535-V	Solid

\* Matched pair



# Gastrointestinal metabolism

## Calprotectin

Calprotectin is a protein biomarker that is present in the faeces when intestinal inflammation occurs. Faecal calprotectin testing prevents the need for unnecessary endoscopy procedures on many patients by screening out those with Irritable Bowel Syndrome (IBS). Measurement of faecal Calprotectin is considered a reliable indicator

of inflammation and numerous studies show that while faecal Calprotectin concentrations are significantly elevated in patients with Inflammatory Bowel Disease (IBD) such as ulcerative colitis and Crohn's disease, patients suffering from IBS do not have increased Calprotectin levels.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5335806	1 mg	Mab	OCT 1*	IgG1	Purified Unconjugated
5335816	1 mg	Mab	OCT 2*	IgG1	Purified Unconjugated
5335826	1 mg	Mab	OCT 3**	IgG1	Purified Unconjugated
5335836	1 mg	Mab	OCT 4***	IgG1	Purified Unconjugated
5335846	1 mg	Mab	OCT 5*,**,*	IgG1	Purified Unconjugated

\* Self-pairing

\*\* Matching pairs

\*\*\* Matching pairs

### Antigens

Cat#	Size	Type	Clone/Host	Isotype	Format
1302901	1 mg	Antigen	-	-	Liquid
1302902	1 mg	Antigen	-	-	Liquid
1302903	1 mg	Antigen	-	-	Liquid

## Haemoglobin

Many bowel abnormalities may develop into cancer over time and evolve without early warning signs or symptoms. Small amounts of blood in the stool may be a sign of colorectal cancer or other problems, such as polyps,

ulcers, or haemorrhoids lesions. Testing patients for Faecal Occult Blood (FOB) is useful for cancer screening and helps the patients to receive earlier and better treatment.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5330506	1 mg	Mab	OCT 6*	IgG1	Purified Unconjugated
5330516	1 mg	Mab	OCT 7*	IgG1	Purified Unconjugated

\* Matching pairs

### Antigens

Cat#	Size	Type	Clone/Host	Isotype	Format
1302904	1 mg	Antigen	-	-	Liquid

## Elastase

Elastase is a proteolytic enzyme produced in the pancreatic acinar cells. Elastase helps to break down fats, proteins, and carbohydrates, playing a key role in the digestive process. A faecal elastase test displaying low levels of faecal elastase can be indicative of Pancreatic Exocrine Insufficiency (PEI). PEI comes as a result of pancreatic damage

such as Chronic Pancreatitis, Pancreatic cancer, type 1 diabetes, and additionally, inflammation from digestive diseases such as Crohn's disease or celiac disease can lead to PEI as well. from IBS do not have increased Calprotectin levels.

## Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5340806	1 mg	Mab	OCT 8*,**	IgG1	Purified Unconjugated
5340816	1 mg	Mab	OCT 9*	IgG1	Purified Unconjugated
5340826	1 mg	Mab	OCT 10**	IgG1	Purified Unconjugated

\* Matching pairs

\*\* Matching pairs

## Antigens

Cat#	Size	Type	Clone/Host	Isotype	Format
1302905	1 mg	Antigen	-	-	Liquid
1302906	1 mg	Antigen	-	-	Liquid

## Neuropeptide Y (NPY)

Neuropeptide Y (NPY) is a 36-amino acid peptide that belongs to the family of neuropeptides, which are short chains of amino acids involved in cell-to-cell communication in the nervous system. It is synthesized in neurons and released into the synaptic cleft, where it binds to specific receptors on target cells, modulating their activity. Its primary roles in-

clude appetite regulation, stress response modulation, cardiovascular regulation, and neuroprotection. Dysregulation of NPY signaling has been implicated in conditions such as obesity, anxiety, depression, cardiovascular diseases, and epilepsy, highlighting its significance in both normal neurobiology and various pathological states.

## Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5351006	1 mL	Mab	6B14 11L8	IgG1, Kappa	Purified unconjugated

## Pancreatic Polypeptide (PP)

Pancreatic polypeptide (PP) is a small peptide hormone produced by the pancreas, specifically by the F cells within the islets of Langerhans. It primarily plays a role in regulating appetite and digestion. It acts as a satiety signal, reducing food intake and promoting a feeling of fullness after a meal, while decreasing between meals can stimulate hunger. PP also influences the secretion of digestive enzymes from

the pancreas and the absorption of nutrients in the gastrointestinal tract, particularly impacting the breakdown of carbohydrates, fats, and proteins. monitoring PP levels can serve as a diagnostic tool for various medical conditions related to the pancreas, gastrointestinal function, and appetite regulation.

## Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5353416	1 mL	Mab	13H8 1F1	IgG1, Kappa	Purified unconjugated

# Growth factors

The hGH, IGF-1 and IGFBP-3 tests are used to investigate different growth disorders, such as acromegaly, gigantism, and precocious or delayed puberty. They can also be useful in the monitoring of treatment with recombinant hGH.

## Growth hormone (hGH)

hGH is a polypeptide hormone (molecular weight 21,500 Da) produced by the acidophil cells of the anterior pituitary under the control of two main substances from the median eminence: Growth-hormone Releasing Factor (GRF) and an inhibitory agent, somatostatin. Dopaminergic, adrenergic and serotonergic neuroendocrine pathways also play an important role in the control of hGH secretion.

hGH hyposecretion is one of the various causes of small stature in children. Serum hGH measurement with a highly sensitive assay, especially following a provocative stimulus (absence of response), is an important way to establish this diagnosis because this group of patients can be treated by administration of hGH.

Serum hGH measurement is also an index of pituitary function when hypopituitarism (either idiopathic or due to tumour and surgery) is suspected. Serum hGH measurement, especially following a provocative inhibitory test (absence of response), is an important way to establish the diagnosis of hGH hypersecretion due to acidophilic pituitary tumour. This results in gigantism in children and acromegaly in adults. Both of these disorders may be treated by surgery or radiation.

## Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5110806	1 mg	Mab	107D 4/2G7 1C3*	IgG1	Purified Unconjugated
5110817	100 µL	PoAb	Rabbit	IgG2a, Kappa	Purified F(ab)'2 Unconjugated
5310806	100 µL	PoAb	107D 4/6H8 1E7*	IgG1	Purified Unconjugated
5310808	100 µL	PoAb	107D 4/6H8 1E7*	IgG1	Purified Biotin Conjugated

## Antigens & Conjugates

Cat#	Size	Type	Match with	Format
5110818	50 µL	MAB HRP conjugate	5310806, 5310808	Liquid, pure conjugate
4110802	200 µL	MAB HRP conjugate	5310806, 5310808	Liquid, concentrate
4110805	6 mL	Dilution buffer for 4110802	NA	Liquid, ready to use

## Insulin-Like Growth Factor (IGF-1)

IGF-1 is a 70-amino acid polypeptide. IGF1 is a member of a family of closely related growth factors with high homology to insulin that signal through a corresponding group of highly homologous tyrosine kinase receptors. IGF1 is produced by many tissues, but the liver is the main source of circulating IGF1. IGF1 is the major mediator of the anabolic and growth-promoting effects of growth hormone (GH). IGF1 is transported by IGF-binding proteins, in particular insulin-like growth factor-binding protein 3 (IGFBP3), which also controls its bioavailability and half-life.

Low IGF1 and IGFBP3 levels are observed in GH deficiency or GH resistance. If acquired in childhood, these conditions result in short stature.

Elevated serum IGF1 and IGFBP3 levels often indicate a sustained overproduction of GH, or excessive rhGH therapy. Malnutrition results in low serum IGF1 concentrations, which recover with restoration of adequate nutrition.

## Antibodies

Cat#	Size	Type	Clone	Isotype	Format
5115806	1 mg	Mab	OBP 7*	IgG1, Kappa	Purified Unconjugated
5315836	1 mg	Mab	OBP 6*	IgG1, Kappa	Purified Unconjugated
5315816	1 mg	Mab	OBP 5	IgG1	Purified Unconjugated

\* Matched pair

## Insulin-Like Growth Factor Binding Protein-3 (IGFBP-3)

IGFBP-3 is the most abundant IGF-binding protein, accounting for as much as 75% or more of the circulating IGF-binding capacity in healthy subjects. IGFBP-3 shares functional properties with IGFBP-5 in that both peptides are able to form high molecular weight ternary complexes of ~150 kilo Dalton with ALS and either IGF-I or -II.

However, IGFBP-5 circulates in much lower concentrations than IGFBP-3, and in healthy subjects the ternary complexes carry as much as 90% of IGFBP-3 but only about 50% of IGFBP-5. Originally, the IGFBPs were thought to serve as IGF-carrier proteins, stabilizing plasma IGF levels and controlling the egress of IGF from the circulation to the extra-vascular compartment.

Furthermore, it was assumed that IGFBP-complexed IGF was biologically more or less inactive, being deprived its ability to interact with the IGF-I receptor.

However, it soon became apparent that in some experimental settings the IGFBPs stimulated rather than inhibited IGF-I mediated actions, and accordingly, the IGFBPs are now often referred to as modulators of IGF-I bioactivity.

In addition, the majority of the IGFBPs, and in particular IGFBP-3, exerts IGF-I and IGF-I receptor independent effects, possible involving interactions with specific receptors located at the cell surface and intracellular.

For example, IGFBP-3 is nowadays considered to serve as an anti-cancer molecule, apparently protecting against several common cancers, and effects of IGFBP-3 on insulin signaling in cultured adipocytes have also been suggested. The turnover of the ternary complexes is very slow, and the plasma concentration of IGFBP-3 remains stable throughout the day, being unaffected by short-term nutritional changes.

Thus, the level of IGFBP-3 may be determined by one single measurement. GH is the primary regulator of IGFBP-3 as well as of IGF-I and ALS and therefore, all three peptides increase during the pubertal growth spurt, where after levels gradually decline with increasing age. In children, IGFBP-3 has been shown to correlate with the 24-h integrated GH secretion and in particular in children IGFBP-3 may be helpful in the diagnosis of GH deficiency.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5111736	1 mg	Mab	175/B4 KA7 BF3 BC9 BA11*	IgG1, Kappa	Purified Unconjugated
5311726	1 mg	Mab	175/B4 EF2 BE10*	IgG1, Kappa	Purified Unconjugated

### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
5111718	100 µL	MAB HRP conjugate	5311726	Liquid, pure conjugate
4111703	500 µL	MAB HRP conjugate	5311726	Liquid, concentrate
4111705	11 mL	Dilution buffer for 4111703	NA	Liquid, ready to use

\* Matched pair

# Inflammation

Inflammation is the complex biological response of vascular tissues to pathogens, damaged cells, or irritants. It is a protective attempt developed by the organism to remove the injurious stimuli as well as initiate the healing process for the tissue. A cascade of biochemical events propagates and matures the inflammatory response, involving the local vascular system, the immune system, and various cells within the injured tissue. Clinical studies show that many cy-

tokines play a crucial role in cancer, infectious diseases, allergy, inflammatory, autoimmune diseases and graft rejection. Measurements of cytokine levels are useful for understanding pathogenesis and as diagnostic and prognostic indicators. Cytokines may be pleiotropic (one cytokine, multiple effects), redundant (multiple cytokines, one effect) and antagonistic (one cytokine inhibits another cytokine).

## Granulocyte-macrophage colony-stimulating factor (GM-CSF)

Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF) is a crucial cytokine that plays a significant role in hematopoiesis and immune response regulation. Its primary function is to stimulate the production of granulocytes (neutrophils, eosinophils, and basophils) and macrophages

in the bone marrow. Elevated GM-CSF levels often signify a heightened and sustained immune reaction, providing insights into the severity and persistence of inflammation as GM-CSF is involved in recruiting and activating immune cell.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5376306	1 mg	Mab	14U12 3J15*	IgG1	Purified unconjugated
5176306	1 mg	Mab	5M3 2E14*	IgG1	Purified unconjugated

## Interferon Gamma (IFN- $\gamma$ )

Interferons is a pleiotropic cytokine which is produced primarily by stimulated macrophages. Its role in directing development of a Th1 type immune response from naive

T-cells demonstrates its critical role in regulation of the immune response and strongly suggests its potential usefulness in cancer therapy.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5375906	1 mg	Mab	1E9 5D9*	IgG1, Kappa	Purified Unconjugated
5175906	1 mg	Mab	9L8 5P14*	IgG1, Kappa	Purified Unconjugated

## Interleukin-1 Alpha (IL-1 $\alpha$ )

Interleukin-1 alpha (IL-1 $\alpha$ ) is a multifunctional cytokine that plays a pivotal role in the regulation of inflammatory responses and immune processes. Elevated levels of IL-1 $\alpha$  have been observed in a range of inflammatory diseases,

including rheumatoid arthritis, inflammatory bowel disease, and psoriasis. Monitoring IL-1 $\alpha$  levels can provide insights into the severity and progression of these conditions.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5376106	1 mg	Mab	14W12 8R14*	IgG1, Kappa	Purified unconjugated
5176106	1 mg	Mab	15W11 4Q9 *	IgG1, Kappa	Purified unconjugated

\* Matched pair

## Interleukin-1 Beta (IL-1 $\beta$ )

The biological properties of IL-1 $\beta$  and its key role in inflammatory processes suggest its involvement in the pathogenesis of many diseases. Indeed, high amounts of IL-1 are found in the joint effusions of some patients with rheumatoid and non-rheumatoid inflammatory joint diseases, in infectious pleural or peritoneal fluids, and in

the drainage fluid of patients undergoing chronic diabetes, periodontal diseases, etc. Elevated levels have been reported in the circulation of febrile or septic patients, in patients with Crohn's disease, during graft rejection, in healthy volunteers after extended exercise and in women following ovulation.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5376206	1 mg	Mab	10O5 4B3*	IgG1, Kappa	Purified unconjugated
5376216	1 mg	Mab	8V7 4P13*	IgG1, Kappa	Purified unconjugated
5176206	1 mg	Mab	13O9 5F4*	IgG1, Kappa	Purified unconjugated

## Interleukin-2 (IL-2)

Interleukin-2 (IL-2) is a versatile cytokine that plays a crucial role in regulating the immune system. Altered IL-2 levels in the context of inflammation can signal various underlying causes, including autoimmune diseases, infections, al-

lergies, and the effects of immunosuppressive or anti-inflammatory treatments. Monitoring IL-2 levels can aid in understanding the dynamics of inflammation and guiding therapeutic decisions.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5375706	1 mg	Mab	11E4 5E11*	IgG1, Kappa	Purified unconjugated
5175706	1 mg	Mab	6M6 1A4*	IgG2b, Kappa	Purified unconjugated

## Interleukin-4 (IL-4)

Interleukin-4 (IL-4) regulates the production of IFN- $\gamma$  by TH1 CD4<sup>+</sup> T-lymphocytes, induces the proliferation of thymocytes and mature T-lymphocytes. IL-4 has also an action on eosinophiles by increasing the expression of CD-23 and

inhibiting the expression of IgG receptors. By its pleiotropic activity, IL-4 is a key cytokine in the cytokine network that shows anti-inflammatory properties and is probably involved in mechanisms of allergy.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5375806	1 mg	Mab	15F3 6E5*	IgG1, Kappa	Purified unconjugated
5175806	1 mg	Mab	1G5 7E11*	IgG1, Kappa	Purified unconjugated

## Interleukin-6 (IL-6)

Elevated quantities of IL-6 are detected in severe inflammatory situations such as septicemia. The elevation of serum IL-6 precedes that of acute phase proteins, e.g. in a postoperative phenomenon, and may thus be a sensitive early parameter to investigate inflammatory conditions.

Serum IL-6 has already been described in association with surgical or traumatic tissue injuries, infectious diseases, auto-immune diseases including arthritis, graft rejection, alcoholic liver cirrhosis, malignancies, etc.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5375106	1 mg	Mab	13F8 10C3 *	IgG1, Kappa	Purified unconjugated
5175106	1 mg	Mab	2E10 14H3*	IgG1, Kappa	Purified unconjugated

\* Matched pair



## Interleukin 8 (IL-8)

IL-8 cytokine (also known as NAP-1 for Neutrophil-activating peptide) belongs to the family of “chemokines”. This proinflammatory mediator is secreted by different cells such as monocytes, neutrophils, endothelial cells, fibroblast after activation, and by mitogen-stimulated T lymphocytes. IL-8 is a key cytokine that has been found in scales

of psoriasis patients, in synovial fluid of patients suffering from rheumatoid arthritis and gout. The IL-8 level in the septic shock patients was found to correlate with mortality and in acute graft liver rejection the IL-8 serum levels were reported to have markedly increased.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5375606	1 mg	Mab	5I13 4L6*	IgG1, Kappa	Purified unconjugated
5175606	1 mg	Mab	2G11 5J7*	IgG1, Kappa	Purified unconjugated

## Interleukin 10 (IL-10)

IL-10 is a lymphokine produced by T helper lymphocytes, by monocytes, macrophages and B-lymphocytes. In vitro, IL-10 is a very powerful inhibitor of monokines (including TNF- $\alpha$ , IL-1, IL-6 and IL-8) . The addition of IL-10 to B lymphocytes results in limited cell proliferation but most importantly in

very high immunoglobulin production, a result of the transformation of B-cells into plasma cells. Circulating levels of IL-10 have been found in serum of patients suffering of Non- Hodgkin's lymphoma, multiple myeloma, cerebral malaria or septic shock.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5375206	1 mg	Mab	15J7 13G6*	IgG1, Kappa	Purified unconjugated
5175206	1 mg	Mab	8M11 7I13*	IgG1, Kappa	Purified unconjugated

## Interleukin-12 (IL-12p40)

Interleukin-12 (IL-12) is a critical cytokine involved in regulating the immune response and inflammation within the human body. IL-12 exists in two biologically active forms: IL-12p40 and IL-12p70. Both forms are composed of two

subunits, p35 and p40, but they differ in their specific functions and receptor binding properties. Elevated levels of IL-12p40.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5375506	1 mg	Mab	7J8 8E10*	IgG1, Kappa	Purified unconjugated
5176406	1 mg	Mab	11P1 5X13*	IgG1, Kappa	Purified unconjugated

\* Matched pair

## Matrix metalloproteinase-3 (MMP-3)

Matrix metalloproteinase-3 (MMP-3), also known as stromelysin-1, is a member of the matrix metalloproteinase family of enzymes. These enzymes play a crucial role in the remodeling and degradation of the extracellular matrix, which is essential for tissue homeostasis and repair. MMP-3, in particular, is known for its involvement in various

physiological and pathological processes, including inflammation. Elevated levels of MMP-3 in the synovial fluid and serum of patients suffering from Rheumatoid Arthritis or Osteoarthritis. In IBD, which includes Crohn's disease and ulcerative colitis, MMP-3 has been associated with tissue damage in the gastrointestinal tract.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5376006	1 mg	Mab	4Q10 10A1 *	NA	Purified unconjugated
5176006	1 mg	Mab	4X13 13H12 *	NA	Purified unconjugated

## Procalcitonin (PCT)

Procalcitonin (PCT) test is used in the diagnosis of bacteremia and septicaemia, in the diagnosis of renal involvement in urinary tract infection, in the diagnosis of bacterial infection in neutropenic patients, in the diagnosis, risk stratification, and monitoring of septic shock, in the diagnosis of systemic secondary infection post-surgery, and in severe

trauma, burns, and multiorgan failure, in the differential diagnosis of bacterial versus viral meningitis, in the differential diagnosis of community-acquired bacterial versus viral pneumonia, and in the monitoring of therapeutic response to antibacterial therapy.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5362906**	100 µg	PoAb	Rabbit	NA	Purified Unconjugated

## Tumor Necrosis Factor (TNF-α)

TNF-α is a cytokine mainly produced by activated macrophages (monocytes). The various biological activities of TNF-α may be classified as :

- Antitumoral and growth regulatory activities
- Immunomodulatory and proinflammatory activities.
- Metabolic activities : TNF-α strongly inhibits lipoprotein lipase and adipocyte gene expression-α often in combination with other cytokines, has also been involved in severe

al autoimmune diseases and even in the pathogenesis of arteriosclerosis.

Abnormal high levels of serum TNF-α have been described in septic shock, graft rejection, parasitic infections, cancer, post hemofiltrations, during in vivo cytokine (IL-2) therapy, etc. Besides an insight into pathogenesis, these determinations might provide an aid in diagnosis (e.g. in graft rejection) and have prognostic value (e.g. in systemic infections).

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5375006	1 mg	Mab	3H2 8B5*	IgG1	Purified unconjugated
5375016	1 mg	Mab	9A3 8E15*	IgG2a	Purified unconjugated
5175006	1 mg	Mab	1C14 15F5*	IgG1	Purified unconjugated

\* Matched pair

\*\* A Sandwich assay can be built with this antibody as capture and detection at the same time

# Kidney function

The kidney function is typically evaluated using creatinine-based equations to calculate GFR. To the contrary of Creatinin, Cystatin C has the advantage of not being influenced by age, gender, and other external factors. Urinary Uromodulin levels is a marker of early renal disfunction.

## Cystatin C

Serum Cystatin C has shown promise as a replacement for serum creatinine in estimation of glomerular filtration rate (GFR). Concentration of serum cystatin C is not affected by gender, age, race, protein intake, and muscle mass, unlike serum creatinine. When GFR decreases, cystatin C level begins to rise proportionately.

Cystatin C can be used as an alternative to blood creatinine or creatinine clearance to screen for, diagnose or monitor kidney failure in known, suspected kidney disease patients.

It can be required if there is a strong suspicion of a decrease in GFR in a patient whose creatinine is, however, normal.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5362206	100 µg	PoAb	Sheep*	NA	Purified Unconjugated
5362216	100 µg	PoAb	Rabbit*	NA	Purified Unconjugated

## Uromodulin

Uromodulin, also known as Tamm-Horsfall protein, is one of the glycoproteins that affect the formation of calcium-containing kidney stones or calculus. Decreased levels of Uromodulin in urine have been found to be a good indicator of kidney stones.

Lowered Uromodulin values are also a sensitive marker of loss in renal function, particularly in the initial stage, when conventional markers are not really significant.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5362506**	100 µg	PoAb	Sheep	NA	Purified Unconjugated

\* Matched pairs

\*\* A Sandwich assay can be built with this antibody as capture and detection at the same time

# Prenatal screening

Prenatal screening covers a variety of testing performed during pregnancy. PP-13 has attracted attention as an early predictive marker of preeclampsia.

## Placental Protein 13 (PP-13)

Placenta protein 13 (PP-13) is a dimer protein which is produced by placenta and has role in implementation. This protein has been attracted as a probable marker for early diagnosis of preeclampsia. During normal pregnancy, the

PP-13 serum levels increase while the declined levels have been found in patients who developed preeclampsia. Studies have shown that measuring PP-13 levels in the first trimester has predictive value.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5362706*	100 µg	PoAb	Rabbit	NA	Purified Unconjugated

\* A Sandwich assay can be built with this antibody as capture and detection at the same time

# Thyroid function

Thyroid tests are performed in order to evaluate the function of the thyroid glands and to help diagnose thyroid disorders such as hyper- and hypothyroidism, goiter, thyroiditis, as well as thyroid

cancers. TSH, Free T3 and T4, as well as Total T3 and T4 are part of the test panel. The TgAb test is used primarily to help diagnose autoimmune conditions involving the thyroid gland.

## Thyroid Stimulating Hormone (TSH)

### Measurement of pituitary production of TSH:

normally, low levels (less than 5 units) of TSH are sufficient to keep the normal thyroid gland functioning properly. When the thyroid gland becomes inefficient such as in early hypothyroidism, the TSH becomes elevated even though the T4/FT4 and T3/FT4 may still be within the “normal” range.

This rise in TSH represents the pituitary gland's response to a drop in circulating thyroid hormone; it is usually the first indication of thyroid gland failure. Since TSH is normally low when the thyroid gland is functioning properly, the

failure of TSH to rise when circulating thyroid hormones are low is an indication of impaired pituitary function.

The new “sensitive” TSH test will show very low levels of TSH when the thyroid is overactive (as a normal response of the pituitary to try to decrease thyroid stimulation). Interpretations of the TSH level depends upon the level of thyroid hormone; therefore, the TSH is usually used in combination with other thyroid tests such as the T4/FT4 and T3/FT3.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5118806	1 mg	Mab	103B 2/7A3 1B7*	IgG1, Kappa	Purified Unconjugated
5118817	1 mg	Mab	103B 2/7A3 1B7*	IgG1, Kappa	Purified F(ab)'2 Unconjugated
5318806	1 mg	Mab	103B 2/2B4 1A8*, **	IgG1, Kappa	Purified Unconjugated
5318817	1 mg	Mab	103B 2/2B4 1A8*, **	IgG1, Kappa	Purified F(ab)'2 Unconjugated
5318826	1 mg	Mab	103B 2/3E1 2F12*, **	IgG1, Kappa	Purified Unconjugated
5318837	1 mg	Mab	103B 2/3E1 2F12*, **	IgG1, Kappa	Purified F(ab)'2 Unconjugated

## Thyroglobulin Autoantibodies (TgAb)

Thyroglobulin Autoantibodies bind thyroglobulin (Tg), a major thyroid-specific protein. Tg plays a crucial role in thyroid hormone synthesis, storage, and release. Tg is not secreted into the systemic circulation under normal circumstances. However, follicular destruction through inflammation, haemorrhage, or rapid disordered growth of thyroid tissue, can result in leakage of Tg into the blood stream and in the formation of autoantibodies to Tg (TgAb) in some individuals.

A TgAb test is therefore useful in the diagnosis of autoimmune thyroid diseases, such as Hashimoto disease, postpartum thyroiditis, neonatal hypothyroidism, and Graves' disease. It can also be used to identify potentially unreliable serum Tg measurements in the follow-up of patients with thyroid cancers. The test is often ordered together with other biomarkers, such as Tg, TPOAb, T3, T4, TSH, CEA or CT.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format	Application
5333516	1 mg	Mab	Tg8-B1	IgG1, Kappa	Purified Unconjugated	ELISA/RIA/CLIA
5333536	1 mg	Mab	Tg10-1B11	IgG1, Kappa	Purified Unconjugated	ELISA/RIA/CLIA

\* Matched pairs

\*\* Can be used alone or as a 50/50 mixture

## L-Thyroxine (T4)

Levothyroxine (INN, USAN) or L-thyroxine is a synthetic thyroid hormone that is chemically identical to thyroxine (T4), which is naturally secreted by the follicular cells of the thyroid gland. It is used to treat thyroid hormone deficiency, and occasionally to prevent the recurrence of thyroid cancer. Like its naturally secreted counterpart, levothyroxine is a chiral compound in the L-form.

The related drug dextrothyroxine (D-thyroxine) was used in the past as a treatment for hypercholesterolemia (elevated cholesterol levels) but was withdrawn due to cardiac side effects.

It is on the World Health Organization's List of Essential Medicines, a list of the most important medication needed in a basic health system.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5316406	1 mg	Mab	T41	IgG1	Purified Unconjugated

### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
1302193-V	2 mg	Antigen - COOH	5316406	Solid

## Free T4 (FT4)

Approximately 70% of circulating T4 is bound to TBG, while about 10% and 20% is bound to transthyretin (TTR) and Albumin, respectively. Less than 0.1% circulates as free T4 (FT4). FT4 enters and leaves cells freely by diffusion, and is therefore the only form that is biologically active.

The measurement of FT4 is used in the determining of thyroid status of sick, hospitalized patients, in the determination of the thyroid status of patients in whom abnormal binding proteins have been identified, and possibly is also useful in pediatric patients.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5316406	1 mg	Mab	T41	IgG1	Purified Unconjugated

### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
1302193-V	2 mg	Antigen - COOH	5316406	Solid

## Triiodothyronine (T3)

Triiodothyronine, also known as T3, is a thyroid hormone. It affects almost every physiological process in the body, including growth and development, metabolism, body temperature, and heart rate.

Production of T3 and its prohormone thyroxine (T4) is activated by thyroid-stimulating hormone (TSH), which is released from the pituitary gland. This pathway is part of a closed-loop feedback process: Elevated concentrations of T3, and T4 in the blood plasma inhibit the production of TSH in the pituitary gland. As concentrations of these hormones decrease, the pituitary gland increases production of TSH, and by these processes, a feedback control system stabilizes the amount of thyroid hormones that are in the bloodstream.

T3 is the true hormone. Its effects on target tissues are roughly four times more potent than those of T4. Of the thyroid hormone that is produced, just about 20% is T3, whereas 80% is produced as T4. Roughly 85% of the circulating T3 is later formed in the liver and pituitary by removal of the iodine atom from the carbon atom number five of the outer ring of T4. In any case, the concentration of T3 in the human blood plasma is about one-fortieth that of T4. This is observed in fact because of the short half-life of T3, which is only 2.5 days. This compares with the half-life of T4, which is about 6.5 days.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5316306	1 mg	Mab	MO11	IgG1	Purified Unconjugated

### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
1302172-V	2 mg	Antigen - COOH	5316306	Solid

### Free T3 (FT3)

Normally, Triiodothyronine (T3) circulates tightly bound to TBG and Albumin. Only 0.3% of the Total T3 is unbound (free). The free fraction is the active form.

FT3 is a second- or third-level test of thyroid function. It provides further confirmation of hyperthyroidism, supple-

menting the T4, TSH and T3 assays. It is essentially used in the evaluation of clinically euthyroid patients who have an altered distribution of binding proteins, and for the monitoring of thyroid hormone replacement therapy.

### Antibodies

Cat#	Size	Type	Clone/Host	Isotype	Format
5316306	1 mg	Mab	MO11	IgG1	Purified Unconjugated

### Antigens & Conjugates

Cat#	Size	Type	Match with	Format
1302172-V	2 mg	Antigen - COOH	5316306	Solid



# Custom Diagnostic Laboratory Services & Sales Conditions

## ISO 9001 and ISO 13485 approved

The scientists at DiaSource have extensive experience in the development of antibodies and related enzymatic or radioactive assays. They can guide you through each step in the process of purifying, fragmenting, coating and labeling antibodies. High level technicians can be

consulted at any time to discuss other services like filling and freeze-drying. We can offer specific and flexible suggestions to enhance the performance of your final product. All services are manufactured under strict ISO-9001 guidelines.

## Services Available

### Coating services

- Coating of polystyrene tubes individually capped: batch size from 30,000 up to 100,000 tubes with your antibodies according to your coating procedure
- Coating of microtiter plates in sealed aluminum bags with your antibodies according to your coating procedure: batch size from 150 up to 900 microtiter plates
- Primary coated tubes with anti-rabbit, anti-sheep or avidin-streptavidin for RIA-IRMA applications
- Primary microtiter plates with anti-rabbit, anti-sheep, or avidin-streptavidin for ELISA applications

### Filling services

- From solution preparation to filling, capping and labeling.

### Freeze-drying services

- Freeze-dry from 0.25ml up to 15ml in glass vials: batch size up to 27,000 vials for 5ml vials.

### Tailored 125I labeling

- Iodination and purification of your antigen (hapten, peptide, protein) either by gel filtration or HPLC.

### Mabs fragmentation

- From the antibodies you send us we can produce F(ab')<sub>2</sub> fragments on a large scale.

### Labeling Services

- Labeling of your antibody or antigen (hapten, peptide) with several markers such as peroxidase, biotin tag or other labels.

### Antibody Purification

- Whatever antibody you send us we can purify it by protein-A, protein-G or caprylic acid precipitation and even by affinity chromatography.

## General conditions of sales

### Article 1 - Application

Unless expressly agreed otherwise in writing, these general terms and conditions shall apply to all offers made by DiaSource and to all contracts concluded on the basis of such an offer or on the basis of an order confirmed by it. The client explicitly waives the application of its own general and special terms and conditions in the context of its relationship with DiaSource. DiaSource shall not be bound by contracts concluded through its staff or agents that do not comply with these terms and conditions. DiaSource reserves the right to amend these Terms and Conditions at any time and without prior notice to the client, provided that such amendments are made available to the client by such means as DiaSource deems appropriate. Such changes shall apply to all subsequent offers and contracts made by DiaSource.

### Article 2 - Conclusion of the contract

An offer by DiaSource is only binding if it is accompanied by an option period, provided that this period has not expired. An order by the client shall be deemed to have been accepted by DiaSource as soon as DiaSource has explicitly confirmed the order in writing.

Each order has its own distinct characteristics, and products ordered by one customer cannot be redirected to another customer. It is the customer's responsibility to check the accuracy of the order and to notify DiaSource immediately of any errors. The customer may not cancel an accepted offer in whole or in part. If the client cancels an accepted offer, the client shall in any event pay the full price of the offer.

DiaSource reserves the right to (i) refuse requests for personalised offers, or requests for modifications to accepted offers; and/or (ii) charge the client for such modifications or personalised offers at the actual cost in force at the time, with a minimum of EUR 40 (excluding VAT).

Without prejudice to the third paragraph of this Article 2, an administration fee of up to EUR 40 (excl. VAT) shall be charged by DiaSource for any order with a value of less than EUR 500 (excl. VAT). DiaSource also reserves the right to suspend, cancel or refuse the order of a customer, in particular in the case where the data communicated by the customer are obviously erroneous or incomplete or where there is a dispute relating to the payment of a previous order.

### Article 3 - Prices and accessories

Unless expressly agreed otherwise in writing, the prices set by DiaSource are valid for packaged products, which are delivered "Ex Works" (within the meaning of Incoterms 2010) to the registered office of DiaSource.

In addition to the agreed price, and unless otherwise expressly agreed in writing, the customer shall bear the following costs: (i) all costs of insurance, protection, loading, transport and unpacking of the goods (ii) All rates and taxes (including VAT and customs duties) relating to the products supplied or the items mentioned under (i), including those rates and taxes which only become applicable or are increased after the conclusion of the contract. (iii) Any additional costs for DiaSource as a result of an unfavourable increase in exchange rates.

All costs incurred as a result of payments made shall be borne by the client.

DiaSource may unilaterally adjust prices. This revision may lead to both an increase in price and a decrease in price. Such a unilateral price adjustment by DiaSource is only valid if DiaSource duly justifies it on the basis of the relevant parameters (increase in the cost of raw materials, etc.). In any case, this revision can only be applied to a maximum of 80% of the price initially fixed

### Article 4 - Payment

Unless otherwise agreed, (i) DiaSource shall send a pro forma invoice to the Client, such pro forma invoice shall be paid prior to the date of despatch as confirmed, receipt of payment into the bank account stated on the invoice shall be prior to despatch of the material and (ii) each invoice shall be paid strictly in accordance with the terms of payment set out on the invoice.

Any complaint relating to an invoice must be sent by registered mail to the head office of DiaSource, eight calendar days after its receipt. Otherwise, the client will not be able to dispute the invoice.

Any late payment will result in all debts owed by the client to DiaSource becoming immediately due and payable upon notification by DiaSource.

Interest on the balance of all debts owed by the client to DiaSource that are due and payable shall be payable by operation of law and without notice of default, at the rate mentioned in article 5, paragraph 2 of the Law of 2 August 2002 concerning the fight against late payment in commercial transactions, increased by 3.5%. All this is without prejudice to (i) the possibility for DiaSource to prove its actual damage and claim compensation, or (ii) the possibility to suspend the continued performance of all other obligations under this (or any other) contract, or to apply any other sanction under common law.

#### **Article 5 - Retention of title - transfer of risk**

Ownership of each product sold shall only be transferred to the customer after full payment of the price and accessories for this product, as well as any default interest or compensation that may be due as a result of late payment of this price. Prior to such full payment, and unless expressly agreed otherwise in writing, the customer is prohibited from disposing of the product, encumbering it with securities, or processing or incorporating it in any way whatsoever. During this period, the customer shall ensure that the product is kept safe, insured and stored individually and that it is marked visibly and legibly as the property of DiaSource. The risk of loss, destruction or damage of the product (also in case of force majeure) shall, however, pass to the client upon delivery of the product.

#### **Article 6 - Delivery time**

Each delivery period is only valid as an indication. Exceeding the delivery period shall not give rise to any sanctions, unless the parties have expressly agreed in writing that the delivery period is binding (in this case, exceeding the delivery period shall only result in compensation for actual damage, which has been proven and established by both parties, or in the dissolution of the contract, at the earliest one month after receipt by DiaSource of a formal notice of default from the client demanding delivery).

#### **Article 7 - Unforeseen events**

If, beyond the control of DiaSource, circumstances occur in the purchasing, production and distribution process or in any other necessary process which could not have been foreseen at the time of the conclusion of the contract (e.g. strikes, accidents, abnormal weather conditions, material defects, etc.) and which make the (timely) delivery of the product impossible or seriously impede the fulfilment of any other obligation, DiaSource shall be entitled to dissolve the contract or suspend its obligations, depending on the nature of these circumstances. DiaSource will not assume any liability in such a case and declares that it never accepts such a risk.

#### **Article 8 - Force Majeure**

DiaSource shall not be held responsible, either contractually or extra-contractually, in the event of temporary or definitive non-performance of its obligations when such non-performance results from a case of force majeure or fortuitous event.

The following events shall be considered as force majeure or fortuitous events 1) the total or partial loss or destruction of the Provider's computer system or its database where either of these events cannot reasonably be directly attributed to the Provider and it is not shown that the Provider failed to take reasonable steps to prevent either of these events, 2) earthquakes, 3) fires, 4) floods, 5) epidemics, 6) acts of war or terrorism, 7) strikes, whether declared or not, 8) lockouts 9) blockades, 10) insurrections and riots, 11) a breakdown in the supply of energy (such as electricity), 12) a failure of the Internet or data storage system, 13) a failure of the telecommunications network, 14) a loss of connectivity to the Internet or telecommunications network on which DiaSource relies, 15) an act or decision of a third party where that decision affects the proper performance of this Agreement or 16) any other cause beyond the reasonable control of DiaSource.

#### **Article 9 - Complaints**

##### **9.1 Visible defects**

Complaints concerning visible defects are only admissible if the product has not yet been used and if these complaints are sent in writing to customer.service@diasource.be within 3 working days of receipt of the products and documented by supporting documents (photos, article number, batch number, etc.). After this period, the products will be considered as accepted by the customer, which implies their conformity.

##### **9.2 Transport**

The customer must check the products immediately after delivery for conformity, correct quantities and visible defects. Complaints will only be taken into consideration if the customer has mentioned these on the signed delivery note. If these damages are not mentioned and described by the client on the transport documents, at the time of acceptance of the delivery, the goods will be considered as delivered without any damage and no claim will be accepted.

DiaSource will not accept any claims for damage caused by a carrier expressly commissioned by the client.

##### **9.3. Performance Defects**

All complaints regarding performance defects must be sent in writing to products.support@diasource.be.

In the event that the products are stored and shipped in a non-conforming condition, used for a purpose or in a process not approved by DiaSource, no claim will be accepted.

##### **9.4. Common provisions**

After the discovery of any defect, the customer is obliged to immediately stop using the product in question and to store the products in the correct manner, on pain of inadmissibility of the complaint.

Defective goods may not be returned by the customer without the express prior consent of DiaSource, and must be properly packaged to preserve their quality during return transport.

DiaSource is only obliged to accept returned goods if they have been the subject of a complaint that DiaSource has declared admissible and well-founded.

Once the customer has made a complaint to DiaSource, if the complaint is found to be justified, DiaSource will, at its option, provide a reasonable discount, credit note or replacement product at its expense.

Under no circumstances shall a complaint suspend the obligation to pay.

The following shall also be inadmissible: complaints concerning facts which are not within the competence of DiaSource, complaints concerning an error on the part of the customer, complaints concerning a subjective or ill-considered character of the said complaint.

#### **Article 10 - Liability / Security / Disclaimer**

DiaSource shall only be liable for hidden defects that fall under its warranty if the client notifies DiaSource of the existence of the defect in writing within 3 working days of the client becoming aware of the defect. In this case, the client may not demand that the sale of the product concerned be rescinded, and DiaSource shall only be liable for (i) the loss in value of the product, as well as, insofar as it is responsible for this, and (ii) the additional damage suffered by the client, if the latter provides proof of this. This compensation (i and ii) may not exceed the price paid by the customer for the product concerned.

The customer undertakes to comply strictly with the Good Distribution Practice (GDP) guidelines applicable to CE marked medical devices. The customer agrees to use the products in a professional manner and in accordance with the instructions provided by DiaSource. The customer agrees to inform DiaSource without delay of any malfunction or change in the characteristics and/or performance of a product purchased from DiaSource. In case of resale of the products by the client to a third party located outside the Belgian territory, the client undertakes to provide this third party with all necessary documents and instructions in the language(s) of the country of export.

#### **Article 11 - Compensation in case of insolvency of the customer**

If the client is declared bankrupt, or if any other insolvency proceedings, or proceedings similar to insolvency proceedings, are opened in relation to the client, all sums owed by and between DiaSource and the client shall be set off by operation of law on the date the insolvency proceedings are opened, even if these sums are not due, liquid or fully certain on the date the insolvency proceedings are opened.

#### **Article 12 - Transferability**

The client may not assign its rights and obligations towards DiaSource to a third party (by way of sale, capital contribution, gift, or any other transaction, including the assignment or contribution of a branch of activity or a universality, or a merger, demerger or other corporate restructuring) without the prior written consent of DiaSource.

#### **Article 13 - Relationship between the parties**

As the parties are independent legal entities, the contract only binds them to each other for the purposes mentioned in the contract. Consequently, the provisions of the contract may not be interpreted as creating any association or partnership between the parties or as conferring any mandate on one party to the other. Furthermore, neither party may bind the other in any way or to any person other than in accordance with the provisions of this contract.

#### **Article 14 - Illegality**

The possible illegality or invalidity of any article, paragraph or provision (or part of an article, paragraph or provision) shall not affect in any way the legality of the other articles, paragraphs or provisions of these general terms and conditions, nor the remainder of that article, paragraph or provision, unless the contrary intention is evident from the text.

#### **Article 15 - Headings**

The headings used in these general conditions are for reference and convenience only. They do not affect the meaning or scope of the provisions they refer to.

#### **Article 16 - Non-waiver**

No failure, neglect or delay by any party to exercise any right or remedy under these terms and conditions shall be construed as a waiver of such right or remedy.

#### **Article 17 - Applicable law and jurisdiction**

These General Terms and Conditions, as well as all contracts to which they relate, are governed by Belgian law, to the exclusion of Belgian private international law and the Vienna Convention on Contracts for the International Sale of Goods of 11 April 1980 (the Convention on the Limitation Period in the International Sale of Goods of 14 June 1974 remains applicable).

The courts of the district of Walloon Brabant shall have exclusive jurisdiction to hear disputes arising from these general terms and conditions or related to contracts concluded by DiaSource (including pre-contractual disputes) to which they refer.

#### **Article 18 - Discrepancies between the different language versions**

These general terms and conditions have been drafted in English and French. In case of discrepancies between the different language versions, the French version shall prevail.

#### **Article 19 - GDPR & Privacy Policy**

DiaSource is compliant with the General Data Protection Regulation. Our privacy and data protection policy is available on our website [www.diasource-diagnostics.com](http://www.diasource-diagnostics.com) Any questions can be addressed to: [GDPR@diasource.be](mailto:GDPR@diasource.be).

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# Our other available product catalogues



## ELISA & RAPID TESTS: Product Catalogue

- Autoimmunity
- Biogenic Amines & Neurosciences
- Bone Metabolism
- Cancer Markers
- Cardiovascular & Salt Balance
- Diabetes & Metabolism
- Fertility
- Gastrointestinal Metabolism
- Growth Factors
- Inflammation Markers
- Infectious Diseases
- Thyroid Function



## RIA: Product Catalogue

- Autoimmunity
- Biogenic Amines & Neurosciences
- Bone Metabolism
- Cancer Markers
- Cardiovascular & Salt balance
- Diabetes & Metabolism
- Fertility
- Gastrointestinal Metabolism
- Growth Factors
- Hematology
- Hepatic Function
- Thyroid Function



## Instruments Catalogue ELISA - CLIA - RIA - BLOT

Contact us

**info@diasource.be**

or visit our website

**www.diasource-diagnostics.com**

For more  
information  
scan this QR code



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