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IMMUNOASSAYS & SERVICES 2020 Made in Germany

BIOGENIC AMINES & NEUROSCIENCE | ENDOCRINOLOGY | FOOD SAFETY





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CATECHOLAMINES

Epinephrine (adrenaline), norepinephrine (noradrenaline) together with dopamine constitute the group of catecholamines, which play an important role as hormones and neurotransmitters. After they have exerted their effects, the catecholamines are broken down via intermediate products (metanephrine, normetanephrine, 3-methoxytyramine respectively) and finally excreted in urine. Diseases which are associated with altered levels of catecholamines include hypertonia, degenerative heart diseases, and catecholamine-producing tumors (pheochromocytoma, neuroblastoma, ganglioneuroma). Of these, pheochromocytoma has the greatest significance. Around 10% of all pheochromocytomas show malignant growth and an unidentified pheochromocytoma poses a serious health risk to the patient. The determination of catecholamines is therefore essential in patients with suspected pheochromocytoma.

CUSTOMIZED ASSAYS FOR EACH KIND OF APPLICATION

- SERIAL 6000, SAMPLE MATRIX: PLASMA AND/OR URINE (ELISA OR RIA)
- SERIAL 5000, SAMPLE MATRIX: ANY BIOLOGICAL SAMPLE (RESEARCH ASSAYS; ELISA)

ADVANTAGES

- Flexible test systems for plasma, urine and other biological fluids
- Fast Track formats reduce incubation times
- Freedom from drug interferences
- Elegant and efficient extraction method
- The IVD assays are quality produced according to ISO 13485
- Excellent sensitivity / specificity
- The research assays (serial 5000) can be used with almost any biological fluid, including tissue homogenates and micro-dialysates
- 15 week shelf life on RIA's (higher counts lead to better signals)



CATECHOLAMINES IN PLASMA AND URINE *ELISA*

ADRENALINE ELISA FAST TRACK

CATALOG NO.:	BA E-6100
DETERMINATIONS:	96
DESCRIPTION:	<small>FAST TRACK</small> Enzyme immunoassay (ELISA) for the quantitative determination of Adrenaline (Epinephrine) in plasma and urine
STANDARD RANGE:	0/1 – 200 ng/ml
SENSITIVITY:	0.9 ng/ml urine, 10 pg/ml plasma
SAMPLE VOLUME:	10 µl urine, 300 µl plasma

NORADRENALINE ELISA FAST TRACK

CATALOG NO.:	BA E-6200
DETERMINATIONS:	96
DESCRIPTION:	<small>FAST TRACK</small> Enzyme immunoassay (ELISA) for the quantitative determination of Noradrenaline (Norepinephrine) in plasma and urine
STANDARD RANGE:	0/5 – 1000 ng/ml
SENSITIVITY:	1.7 ng/ml urine, 36 pg/ml plasma
SAMPLE VOLUME:	10 µl urine, 300 µl plasma

DOPAMINE ELISA FAST TRACK

CATALOG NO.:	BA E-6300
DETERMINATIONS:	96
DESCRIPTION:	<small>FAST TRACK</small> Enzyme immunoassay (ELISA) for the quantitative determination of Dopamine in plasma and urine
STANDARD RANGE:	0/4.5 – 2000 ng/ml
SENSITIVITY:	2.5 ng/ml urine, 49 pg/ml plasma
SAMPLE VOLUME:	10 µl urine, 300 µl plasma

2-CAT ELISA FAST TRACK

CATALOG NO.:	BA E-6500
DETERMINATIONS:	2 × 96
DESCRIPTION:	<small>FAST TRACK</small> Enzyme immunoassay (ELISA) for the quantitative determination of Adrenaline (Epinephrine) and Noradrenaline (Norepinephrine) in plasma and urine
STANDARD RANGE:	Adrenaline 0/1 – 200 ng/ml; Noradrenaline 0/5 – 1000 ng/ml
SENSITIVITY:	Adrenaline: 0.9 ng/ml urine, 10 pg/ml plasma; Noradrenaline: 1.7 ng/ml urine, 36 pg/ml plasma
SAMPLE VOLUME:	10 µl urine, 300 µl plasma

3-CAT ELISA FAST TRACK

CATALOG NO.:	BA E-6600
DETERMINATIONS:	3 × 96
DESCRIPTION:	<small>FAST TRACK</small> Enzyme immunoassay (ELISA) for the quantitative determination of Adrenaline (Epinephrine), Noradrenaline (Norepinephrine), and Dopamine in plasma and urine
STANDARD RANGE:	Adrenaline 0/1 – 200 ng/ml; Noradrenaline 0/5 – 1000 ng/ml; Dopamine 0/4.5 – 2000 ng/ml
SENSITIVITY:	Adrenaline: 0.9 ng/ml urine, 10 pg/ml plasma; Noradrenaline: 1.7 ng/ml urine, 36 pg/ml plasma; Dopamine: 2.5 ng/ml urine, 49 pg/ml plasma
SAMPLE VOLUME:	10 µl urine, 300 µl plasma

CATECHOLAMINES IN PLASMA AND URINE *RIA*

2-CAT RIA FAST TRACK

CATALOG NO.: BA R-6500
DETERMINATIONS: 2 × 96
DESCRIPTION: FAST TRACK Radioimmunoassay (RIA) for the quantitative determination of Adrenaline (Epinephrine) and Noradrenaline (Norepinephrine) in plasma and urine
STANDARD RANGE: Adrenaline 0/1 – 200 ng/ml; Noradrenaline 0/5 – 1000 ng/ml
SENSITIVITY: Adrenaline: 0.39 ng/ml urine, 19 pg/ml plasma; Noradrenaline: 1.1 ng/ml urine, 42 pg/ml plasma
SAMPLE VOLUME: 10 µl urine, 300 µl plasma

3-CAT RIA FAST TRACK

CATALOG NO.: BA R-6600
DETERMINATIONS: 3 × 96
DESCRIPTION: FAST TRACK Radioimmunoassay (RIA) for the quantitative determination of Adrenaline (Epinephrine), Noradrenaline (Norepinephrine), and Dopamine in plasma and urine
STANDARD RANGE: Adrenaline 0/1 – 200 ng/ml; Noradrenaline 0/5 – 1000 ng/ml; Dopamine 0/4.5 – 2000 ng/ml
SENSITIVITY: Adrenaline: 0.39 ng/ml urine, 19 pg/ml plasma; Noradrenaline: 1.1 ng/ml urine, 42 pg/ml plasma; Dopamine: 3 ng/ml urine, 29 pg/ml plasma
SAMPLE VOLUME: 10 µl urine, 300 µl plasma

CATECHOLAMINES RESEARCH ASSAYS *ELISA*

There is an increasing interest to elucidate the important roles catecholamines play in development, cardiovascular function, psychiatric disorders and behaviour, neurodegenerative diseases, sleep, mood, attention, learning and metabolism. Research in these areas often requires sensitive and flexible methods which are able to quantify minute amounts of analytes – methods, which give reliable results even using the smallest sample volume.

The following group of research ELISAs is designed for the high-sensitive quantification of epinephrine (adrenaline), norepinephrine (noradrenaline) or dopamine. Various kinds of biological samples can be used with a minimal sample volume as low as 1 µl. The assay sensitivities depend on sample volume – reaching the highest sensitivity with 750 µl of sample volume. Reported applications comprise different kinds of tissue homogenates (e.g. brain homogenates), micro-dialysates, cell culture, and many other biological samples.

THE ASSAYS SHOW THE FOLLOWING COMMON FEATURES

- High sensitivity
- Small sample volumes
- Flexible protocols
- Designed to test various sample types from multiple species
- Elegant and efficient extraction method
- Freedom from drug interferences
- Single and multi parameter kits available

ADRENALINE RESEARCH ELISA

CATALOG NO.:	BA E-5100
DETERMINATIONS:	96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative and ultra sensitive determination of Adrenaline (Epinephrine) in any species and various biological samples
STANDARD RANGE:	0/0.5–80 ng/ml
SENSITIVITY:	3.3 pg/ml (depending on sample volume)
SAMPLE VOLUME:	1 – 750 µl, all biological fluids

NORADRENALINE RESEARCH ELISA

CATALOG NO.:	BA E-5200
DETERMINATIONS:	96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative and ultra sensitive determination of Noradrenaline (Norepinephrine) in any species and various biological samples
STANDARD RANGE:	0/0.2–32 ng/ml
SENSITIVITY:	1.3 pg/ ml (depending on sample volume)
SAMPLE VOLUME:	1 – 750 µl, all biological fluids

DOPAMINE RESEARCH ELISA

CATALOG NO.:	BA E-5300
DETERMINATIONS:	96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative and ultra sensitive determination of Dopamine in any species and various biological samples
STANDARD RANGE:	0/0.5–80 ng/ml
SENSITIVITY:	3.3 pg/ml (depending on sample volume)
SAMPLE VOLUME:	1–750 µl, all biological fluids

2-CAT (A-N) RESEARCH ELISA

CATALOG NO.:	BA E-5400
DETERMINATIONS:	2 × 96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative and ultra sensitive determination of Adrenaline (Epinephrine) and Noradrenaline (Norepinephrine) in any species and various biological samples
STANDARD RANGE:	Adrenaline: 0/0.5–80 ng/ml; Noradrenaline: 0/0.2–32 ng/ml
SENSITIVITY:	Adrenaline: 6.6 pg/ml; Noradrenaline: 2.6 pg/ml (depending on sample volume)
SAMPLE VOLUME:	1–750 µl, all biological fluids

2-CAT (N-D) RESEARCH ELISA

CATALOG NO.:	BA E-5500
DETERMINATIONS:	2 × 96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative and ultra sensitive determination of Dopamine and Noradrenaline (Norepinephrine) in any species and various biological samples
STANDARD RANGE:	Noradrenaline: 0/0.2–32 ng/ml; Dopamine: 0/0.5–80 ng/ml
SENSITIVITY:	Noradrenaline: 2.6 pg/ml; Dopamine: 6.6 pg/ml (depending on sample volume)
SAMPLE VOLUME:	1–750 µl, all biological fluids

3-CAT RESEARCH ELISA

CATALOG NO.:	BA E-5600
DETERMINATIONS:	3 × 96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative and ultra sensitive determination of Adrenaline (Epinephrine), Noradrenaline (Norepinephrine), and Dopamine in any species and various biological samples
STANDARD RANGE:	Adrenaline, Dopamine: 0/0.5–80 ng/ml; Noradrenaline: 0/0.2–32 ng/ml
SENSITIVITY:	Adrenaline: 10 pg/ml; Noradrenaline: 4 pg/ml; Dopamine: 10 pg/ml (depending on sample volume)
SAMPLE VOLUME:	1–750 µl, all biological fluids

METANEPHRINES

Metanephrine and normetanephrine are the 3-methoxy metabolites of epinephrine and norepinephrine, respectively. They are metabolized to vanillylmandelic acid or excreted with the urine. Patients with pheochromocytoma or other tumours derived from neuroendocrine cells show elevated levels of the total metanephrines (metanephrine and normetanephrine) in urine and elevated levels of the free metanephrines (metanephrine and normetanephrine) in plasma.

AVAILABLE KITS

- Free metanephrine and normetanephrine in plasma (ELISA or RIA)
- Metanephrine and normetanephrine in urine (ELISA or RIA)

METANEPHRINES IN PLASMA *ELISA/RIA*

Cells derived from neuroendocrine tumours (e.g. pheochromocytoma) are known to produce catecholamines which are secreted episodically via vesicles into the blood stream. But beside this a small portion of the catecholamines is meta - bolized inside the cells to the corresponding catecholamines metabolites – namely metanephrine, normetanephrine and 3-methoxytyramine – which are secreted at low levels continuously into the blood stream.

Recent studies and publications have shown that the quantification of the plasma free metanephrine (fMN) and plasma free normetanephrine (fNMN) is the most accurate biochemical marker for the clinical diagnosis of pheochromocytoma and follow-up of pheochromocytoma patients. LDN has developed enzyme immunoassays and isotopic assays for the quantitative determination of fMN and fNMN in human plasma.

THE ASSAYS SHOW THE FOLLOWING COMMON FEATURES

- Speed and ease of use
- Cost-effective
- For in vitro diagnostics and research applications
- Wide standard ranges
- Available as ELISA and RIA (with 15 weeks shelf-life)
- The ELISA is automatable (completely validated on Gemini)
- Freedom from drug interferences
- Excellent correlation with LC-MS/MS
- Single and multi parameter kits available

METANEPHRINE PLASMA ELISA FAST TRACK

CATALOG NO.: BA E-8100
DETERMINATIONS: 96
DESCRIPTION: FAST TRACK Enzyme immunoassay (ELISA) for the quantitative determination of free Metanephrine in plasma
STANDARD RANGE: 0/36–3600 pg/ml
SENSITIVITY: 14.9 pg/ml
SAMPLE VOLUME: 200 µl plasma

NORMETANEPHRINE PLASMA ELISA FAST TRACK

CATALOG NO.: BA E-8200
DETERMINATIONS: 96
DESCRIPTION: FAST TRACK Enzyme immunoassay (ELISA) for the quantitative determination of free Normetanephrine in plasma
STANDARD RANGE: 0/72–7200 pg/ml
SENSITIVITY: 17.9 pg/ml
SAMPLE VOLUME: 200 µl plasma

2-MET PLASMA ELISA FAST TRACK

CATALOG NO.: BA E-8300
DETERMINATIONS: 2 × 96
DESCRIPTION: FAST TRACK Enzyme immunoassay (ELISA) for the quantitative determination of Free Metanephrine and Free Normetanephrine in plasma
STANDARD RANGE: Metanephrine 0/36 – 3600 pg/ml, Normetanephrine 0/72 – 7200 pg/ml
SENSITIVITY: Metanephrine: 14.9 pg/ml; Normetanephrine: 17.9 pg/ml
SAMPLE VOLUME: 200 µl plasma

2-MET PLASMA RIA FAST TRACK

CATALOG NO.: BA R-8300
DETERMINATIONS: 2 × 100
DESCRIPTION: FAST TRACK Radioimmunoassay (RIA) for the quantitative determination of Free Metanephrine and Free Normetanephrine in plasma
STANDARD RANGE: Metanephrine 0/36 – 3600 pg/ml, Normetanephrine 0/72 – 7200 pg/ml
SENSITIVITY: Metanephrine: 5.8 pg/ml; Normetanephrine: 21.4 pg/ml
SAMPLE VOLUME: 200 µl plasma

METANEPHRINES IN URINE *ELISA/RIA*

Patients with pheochromocytoma or other tumours derived from neuroendocrine cells show elevated urinary levels of total Metanephrines. As catecholamine secretion from neuroendocrine cells might show high variations urine samples collected over a period of 24 hours are used to average these fluctuations.

This group of assays is intended for the fast measurement of metanephrine and/or normetanephrine in urine samples. Using a simple hydrolysis step the total metanephrine and normetanephrine can be quantified. If hydrolysis is left away the assays will measure the free fractions of metanephrine and normetanephrine.

METANEPHRINE URINE ELISA FAST TRACK

CATALOG NO.:	BA E-8400
DETERMINATIONS:	96
DESCRIPTION:	<small>FAST TRACK</small> Enzyme immunoassay (ELISA) for the quantitative determination of Metanephrine in urine
STANDARD RANGE:	0/20–2000 ng/ml
SENSITIVITY:	8,6 ng/ml
SAMPLE VOLUME:	25 µl urine

NORMMETANEPHRINE URINE ELISA FAST TRACK

CATALOG NO.:	BA E-8500
DETERMINATIONS:	96
DESCRIPTION:	<small>FAST TRACK</small> Enzyme immunoassay (ELISA) for the quantitative determination of Normetanephrine in urine
STANDARD RANGE:	0/30–3000 ng/ml
SENSITIVITY:	14,7 ng/ml
SAMPLE VOLUME:	25 µl urine

2-MET URINE ELISA FAST TRACK

CATALOG NO.:	BA E-8600
DETERMINATIONS:	2 × 96
DESCRIPTION:	<small>FAST TRACK</small> Enzyme immunoassay (ELISA) for the quantitative determination of Metanephrine and Normetanephrine in urine
STANDARD RANGE:	Metanephrine 0/20–2000 ng/ml; Normetanephrine 0/30–3000 ng/ml
SENSITIVITY:	Metanephrine 8.6 ng/ml; Normetanephrine 14.7 ng/ml
SAMPLE VOLUME:	25 µl urine

2-MET URINE RIA FAST TRACK

CATALOG NO.:	BA R-8600
DETERMINATIONS:	2 × 100
DESCRIPTION:	<small>FAST TRACK</small> Radioimmunoassay (RIA) for the quantitative determination of Metanephrine and Normetanephrine in urine
STANDARD RANGE:	Metanephrine 0/20–2000 ng/ml; Normetanephrine 0/30–3000 ng/ml
SENSITIVITY:	Metanephrine 9 ng/ml; Normetanephrine 10.4 ng/ml
SAMPLE VOLUME:	25 µl urine

3-Methoxytyramine

3-Methoxytyramine (3-MT) is a metabolite of the neurotransmitter dopamine formed by the introduction of a methyl group to dopamine by the enzyme catechol-O-methyl transferase (COMT).

The measurement of 3-MT allows the detection of dopamine-producing tumours: For example a substantial number of patients with head-and-neck paragangliomas (HNPGL) have biochemically active tumors and only display increased excretion of 3-methoxytyramine, but not of other catecholamines or their metabolites.

The combined levels of free Metanephrine/Normetanephrine and free 3MT in plasma indicate a higher number of biochemically active HNPGLs than the 24-h urinary excretion rates of these markers.

Beside this 3-MT acts as a neuromodulator and can also induce behavioral effects involved in movement control in a dopamine-independent manner. Most of these effects are mediated by the trace amine associated receptor 1 (TAAR1) which in turn is involved in abnormal dopaminergic transmission, such as Parkinson's disease, dyskinesia and schizophrenia.

3-MT PLASMA RIA FAST TRACK

CATALOG NO.:	BA R-8800
DETERMINATIONS:	96
DESCRIPTION:	<small>FAST TRACK</small> Radioimmunoassay (RIA) for the quantitative determination of 3-Methoxytyramine in plasma
STANDARD RANGE:	0/2 – 150 pg/ml
SENSITIVITY:	1.1 pg/ml
SAMPLE VOLUME:	750 µl plasma

SEROTONIN *ELISA/RIA*

Serotonin (5-hydroxytryptamine) belongs to the group of biogenic amines and is an intermediate product of the tryptophan metabolism. It plays an important role as a neurotransmitter in the regulation of different behavioural patterns such as motor activity, aggression, sexuality, appetite, depressions, and sleep. Serotonin can be found in the intestinal mucosa, in urine, and in blood as well as in the central nervous system (CNS). In blood, it is transported predominantly in the platelets. Diseases which are associated with altered serotonin concentrations include disorders of the CNS, for example autism, epilepsy, schizophrenia and depression, and carcinoid tumors of the intestine or bronchi.

The Serotonin Research ELISA offers a flexible protocol which is suitable for the high-sensitive quantitative measurement of Serotonin in any biological sample such as tissue homogenates, cell culture supernatant, cerebrospinal fluid (CSF), platelet-poor-plasma, and cell lysates.

SEROTONIN ELISA FAST TRACK

CATALOG NO.:	BA E-8900
DETERMINATIONS:	96
DESCRIPTION:	<small>FAST TRACK</small> Enzyme immunoassay (ELISA) for the quantitative determination of Serotonin
STANDARD RANGE:	0/15–2500 ng/ml
SENSITIVITY:	6.2 ng/ml
SAMPLE VOLUME:	25 µl serum, urine, platelets

SEROTONIN RESEARCH ELISA

CATALOG NO.:	BA E-5900
DETERMINATIONS:	96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative ultra sensitive determination of Serotonin in various species and various biological samples
STANDARD RANGE:	0/0.015–2.5 ng/ml
SENSITIVITY:	5 pg/ml (depending on sample volume)
SAMPLE VOLUME:	1 – 100 µl, all biological fluids

SEROTONIN RIA FAST TRACK

CATALOG NO.:	BA R-8900
DETERMINATIONS:	100
DESCRIPTION:	<small>FAST TRACK</small> Radioimmunoassay (RIA) for the quantitative determination of Serotonin
STANDARD RANGE:	0/15–2500 ng/ml
SENSITIVITY:	6.6 ng/ml serum, urine, platelets
SAMPLE VOLUME:	25 µl serum, urine, platelets

HISTAMINE *ELISA*

In humans, histamine (β -imidazole ethylamine) is one of the most important mediators and takes part in the initial phase of an anaphylactic reaction ("immediate type" allergy). It is produced by basophils and by mast cells found in connective tissues. Of clinical interest is also the quantification of the histamine release from basophilic leucocytes in allergies. Histamine is not only a main mediator in allergic reactions but also acts as a neurotransmitter within the central nervous system (CNS). Here it modulates basic processes such as wakefulness, cognitive ability, control of pituitary gland, and food consumption.

HISTAMINE ELISA

CATALOG NO.:	BA E-1000
DETERMINATIONS:	96
DESCRIPTION:	Enzyme immunoassay (ELISA) for the quantitative determination of Histamine in plasma and urine
STANDARD RANGE:	0/0,5–50 ng/ml
SENSITIVITY:	0.18 ng/ml plasma, 0.22 ng/ml urine
SAMPLE VOLUME:	10 μ l urine, 25 μ l plasma

HISTAMINE RELEASE

CATALOG NO.:	BA E-1100
DETERMINATIONS:	96
DESCRIPTION:	Supplementary kit for the quantitative determination of Histamine Release in heparinized whole blood.
STANDARD RANGE:	0/0,5–50 ng/ml
SAMPLE VOLUME:	640 μ l whole blood per allergen

HISTAMINE RESEARCH ELISA

CATALOG NO.:	BA E-5800
DETERMINATIONS:	96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative determination of Histamine in any species and various biological samples
STANDARD RANGE:	0/0,5–50 ng/ml
SENSITIVITY:	0.2 ng/ml
SAMPLE VOLUME:	10 - 25 μ l, different animal species and biological samples

MELATONIN *ELISA*

In mammals, melatonin is biosynthesized in the pineal gland from the essential dietary amino acid tryptophan, with serotonin produced as an intermediate. In general melatonin acts as an endocrine hormone.

Many biological effects of melatonin are generated through activation of melatonin receptors, while others are due to its role as a powerful antioxidant, being a direct scavenger of OH, O₂⁻, and NO. The serum and saliva melatonin levels in humans show a marked circadian rhythm characterized by very low levels during day time and high levels during night time. In humans, 90% of melatonin is cleared in a single passage through the liver, a small amount is excreted in urine, and a small amount is found in saliva.

MELATONIN ELISA

CATALOG NO.:	BA E-3300
DETERMINATIONS:	96
DESCRIPTION:	Enzyme immunoassay (ELISA) for the quantitative determination of Melatonin in serum and plasma
STANDARD RANGE:	0/3 - 300 pg/ml
SENSITIVITY:	1.6 pg/ml
SAMPLE VOLUME:	500 µl serum or plasma

MELATONIN DIRECT SALIVA ELISA

CATALOG NO.:	BA E-3400
DETERMINATIONS:	96
DESCRIPTION:	Enzyme immunoassay (ELISA) for the quantitative determination of Melatonin in saliva
STANDARD RANGE:	0/0.5 - 50 pg/ml
SENSITIVITY:	0.3 pg/ml
SAMPLE VOLUME:	100 µl saliva

5-HIAA *ELISA*

5-HIAA ELISA

CATALOG NO.:	BA E-1900
DETERMINATIONS:	96
DESCRIPTION:	Enzyme immunoassay (ELISA) for the quantitative determination of 5-HIAA (5-hydroxyindoleacetic acid) in urine
STANDARD RANGE:	0/0.5–50 mg/l
SENSITIVITY:	0.17 mg/l
SAMPLE VOLUME:	50 µl urine

TRYPTOPHAN *ELISA*

TRYPTOPHAN ELISA

CATALOG NO.:	BA E-2700
DETERMINATIONS:	96
DESCRIPTION:	Enzyme immunoassay (ELISA) for the quantitative determination of Tryptophan in urine, plasma, and serum
STANDARD RANGE:	0/2.5–250 µg/ml
SENSITIVITY:	1.2 µg/ml
SAMPLE VOLUME:	20 µl urine, plasma or serum

KYNURENINE *ELISA*

KYNURENINE ELISA

CATALOG NO.:	BA E-2200
DETERMINATIONS:	96
DESCRIPTION:	Enzyme immunoassay (ELISA) for the quantitative determination of Kynurenine in serum and plasma
STANDARD RANGE:	0/100–10000 ng/ml
SENSITIVITY:	45.7 ng/ml
SAMPLE VOLUME:	10 µl serum or plasma

GABA *ELISA*

GABA ELISA

CATALOG NO.:	BA E-2500
DETERMINATIONS:	96
DESCRIPTION:	Enzyme immunoassay (ELISA) for the quantitative determination of Gamma-aminobutyric acid (GABA) in human plasma, serum, urine and various biological samples
STANDARD RANGE:	0/25 - 2500 ng/ml or 0/75 - 7500 ng/ml
SENSITIVITY:	49 ng/ml (urine)
SAMPLE VOLUME:	100 - 300 µl plasma, cell cultures and tissue homogenates

GLUTAMATE *ELISA*

GLUTAMATE ELISA

CATALOG NO.:	BA E-2400
DETERMINATIONS:	96
DESCRIPTION:	Enzyme immunoassay (ELISA) for the quantitative determination of Glutamate in urine and various biological samples
STANDARD RANGE:	0/0,6 - 60 µg/ml
SENSITIVITY:	0,3 µg/ml
SAMPLE VOLUME:	100 µl prediluted (1:5) serum or plasma, 100 µl urine, cell cultures and tissue homogenates

GLYCINE *ELISA*

GLYCINE ELISA

CATALOG NO.:	BA E-2100
DETERMINATIONS:	96
DESCRIPTION:	Enzyme immunoassay (ELISA) for the quantitative determination of Glycine in urine
STANDARD RANGE:	0/10 - 1000 µg/ml
SENSITIVITY:	3,3 µg/ml
SAMPLE VOLUME:	20 µl urine

CITRULLINE *ELISA*

CITRULLINE ELISA

CATALOG NO.:	BA E-2800
DETERMINATIONS:	96
DESCRIPTION:	Enzyme Immunoassay (ELISA) for the quantitative determination of Citrulline in serum, plasma, urine, and various biological samples
STANDARD RANGE:	0/0,6 - 60 µg/ml
SENSITIVITY:	0,23 µg/ml
SAMPLE VOLUME:	50 µl serum/plasma (prediluted 1:4); 50 µl urine

ENDOCRINOLOGY

AVAILABLE KIT CATEGORIES

- ANDROGEN ASSESSMENT
- FERTILITY AND REPRODUCTION
- METABOLISMUS
- MINERAL AND SALT BALANCE
- THYROID FUNCTION
- TUMOR MARKERS
- DISEASE MARKERS
- SALIVA ASSAYS
- RESEARCH ASSAYS

ADVANTAGES

- High diagnostic sensitivity and specificity
- Easily adaptable to most common automated open systems
- Colour-coded kit reagents for easy recognition
- Breakable 96 wells, economical benefit
- Controls and calibrators included
- Long shelf life
- The IVD assays are quality produced according to ISO 13485

ANDROGEN ASSESSMENT *ELISA*

ANDROSTENEDIONE ELISA

CATALOG NO.:	AA E-1000
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Androstenedione in human serum and plasma
STANDARD RANGE:	0/0.1 – 10 ng/ml
SENSITIVITY:	0.021 ng/ml
SAMPLE VOLUME:	20 µl serum or plasma

DHEA-S ELISA

CATALOG NO.:	AA E-1100
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Dehydroepiandrosterone-Sulfate in human serum
STANDARD RANGE:	0/0.005 – 10 µg/ml
SENSITIVITY:	0.005 µg/ml
SAMPLE VOLUME:	25 µl serum

SHBG ELISA

CATALOG NO.:	AA E-1200
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Sex Hormone Binding Globulin in human serum and plasma
STANDARD RANGE:	0/4 – 260 nmol/l
SENSITIVITY:	0.408 nmol/l
SAMPLE VOLUME:	50 µl prediluted serum or plasma

TESTOSTERONE ELISA

CATALOG NO.:	AA E-1300
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Total Testosterone in human serum and plasma
STANDARD RANGE:	0/0.2 – 16 ng/ml
SENSITIVITY:	0.083 ng/ml
SAMPLE VOLUME:	25 µl serum or plasma

FREE TESTOSTERONE ELISA ^{2ND GENERATION}

CATALOG NO.:	AA E-1800
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Free Testosterone in human serum
STANDARD RANGE:	0/0.1 - 60 pg/ml
SENSITIVITY:	0.018 pg/ml
SAMPLE VOLUME:	25 µl serum

ANDROSTANEDIOL-GLUCURONIDE ELISA

CATALOG NO.: AA E-1500
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of 5
STANDARD RANGE: 0/0.25–50 ng/ml
SENSITIVITY: 0.1 ng/ml
SAMPLE VOLUME: 50 µl serum

DHEA ELISA

CATALOG NO.: AA E-1600
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Dehydroepiandrosterone in human serum and plasma
STANDARD RANGE: 0/0.3–30 ng/ml
SENSITIVITY: 0.07 ng/ml
SAMPLE VOLUME: 25 µl serum or plasma

DHT ELISA

CATALOG NO.: AA E-1700
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Dihydrotestosterone in human serum
STANDARD RANGE: 0/25–2500 pg/ml
SENSITIVITY: 6 pg/ml
SAMPLE VOLUME: 50 µl serum

FERTILITY AND REPRODUCTION *ELISA*

ESTRADIOL ELISA

CATALOG NO.: FR E-2000
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Estradiol in human serum and plasma
STANDARD RANGE: 0/25–2000 pg/ml
SENSITIVITY: 6.2 pg/ml
SAMPLE VOLUME: 25 µl serum or plasma

FREE ESTRIOL ELISA

CATALOG NO.: FR E-2100
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Free Estriol in human serum
STANDARD RANGE: 0/0.3–40 ng/ml
SENSITIVITY: 0.021 ng/ml
SAMPLE VOLUME: 10 µl serum

ESTRONE ELISA

CATALOG NO.: FR E-2300
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Estrone in human serum and plasma
STANDARD RANGE: 0/15–2400 pg/ml
SENSITIVITY: 8.1 pg/ml
SAMPLE VOLUME: 25 µl serum or plasma

PROGESTERONE ELISA

CATALOG NO.: FR E-2500
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Progesterone in human serum and plasma
STANDARD RANGE: 0/0.3–40 ng/ml
SENSITIVITY: 0.045 ng/ml
SAMPLE VOLUME: 25 µl serum or plasma

PREGNENOLONE ELISA

CATALOG NO.: FR E-2700
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Pregnenolone in human serum
STANDARD RANGE: 0/0.1 - 25.6 ng/ml
SENSITIVITY: 0.05 ng/ml
SAMPLE VOLUME: 50 µl serum

17-OH-PROGESTERONE ELISA

CATALOG NO.: FR E-2800
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of 17-OH-Progesterone in human serum and plasma
STANDARD RANGE: 0/0.1–25 ng/ml
SENSITIVITY: 0.014 ng/ml
SAMPLE VOLUME: 25 µl serum or plasma

PAPP-A ELISA

CATALOG NO.: EIA-2397
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of pregnancy associated plasma protein A in human serum and plasma
STANDARD RANGE: 0/1–30 µg/ml
SENSITIVITY: 0.133 µg/ml
SAMPLE VOLUME: 10 µl serum or plasma

METABOLISM *ELISA*

C-PEPTIDE ELISA

CATALOG NO.:	ME E-0100
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of C-Peptide in human serum, plasma and urine
STANDARD RANGE:	0.2 - 16 ng/ml
SENSITIVITY:	0.64 ng/ml
SAMPLE VOLUME:	100 µl serum, plasma or urine

HGH ELISA

CATALOG NO.:	ME E-0200
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of human Growth Hormone in human serum
STANDARD RANGE:	0/1 – 50 ng/ml
SENSITIVITY:	0,5 ng/ml
SAMPLE VOLUME:	25 µl serum

LEPTIN ELISA

CATALOG NO.:	ME E-0300
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Leptin in human serum
STANDARD RANGE:	0/1 – 100 ng/ml
SENSITIVITY:	0,5 ng/ml
SAMPLE VOLUME:	20 µl serum

IGFBP-1 ELISA

CATALOG NO.:	ME E-0400
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of human Insulin-like Growth Factor Binding Protein 1 in human serum
STANDARD RANGE:	0/1 – 250 µg/l
SENSITIVITY:	0,5 µg/l
SAMPLE VOLUME:	25 µl serum

IGF-1 ELISA

CATALOG NO.:	ME E-0500
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of human insulin-like growth factor 1 in human serum
STANDARD RANGE:	0/10 – 600 ng/ml
SENSITIVITY:	9,75 ng/ml
SAMPLE VOLUME:	50 µl serum

INSULIN ELISA

CATALOG NO.:	ME E-0900
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Insulin in human serum and plasma
STANDARD RANGE:	0/6.25–100 µIU/ml
SENSITIVITY:	1.76 µIU/ml
SAMPLE VOLUME:	25 µl serum or plasma

MINERAL AND SALT BALANCE ELISA**CORTISOL ELISA**

CATALOG NO.:	MS E-5000
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Cortisol in human serum and plasma
STANDARD RANGE:	0/20–800 ng/ml
SENSITIVITY:	1.3 ng/ml
SAMPLE VOLUME:	20 µl serum or plasma

CORTISOL URINE ELISA

CATALOG NO.:	MS E-5100
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Cortisol in urine
STANDARD RANGE:	1 - 200 ng/ml
SENSITIVITY:	0.47 ng/ml
SAMPLE VOLUME:	10 µl urine

ALDOSTERONE ELISA

CATALOG NO.:	MS E-5200
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Aldosterone in human serum, plasma, and urine
STANDARD RANGE:	0/20 - 1000 pg/ml
SENSITIVITY:	5.7 pg/ml
SAMPLE VOLUME:	50 µl serum, plasma or prediluted urine*
	For the urine sample preparation the supplementary kit ALDOSTERONE URINE (MS U-5200) has to be used

ACTIVE RENIN ELISA

CATALOG NO.:	MS E-5300
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of active Renin in plasma and serum
STANDARD RANGE:	0/4–128 pg/ml
SENSITIVITY:	0.80 pg/ml
SAMPLE VOLUME:	50 µl plasma or serum

CORTICOSTERONE ELISA

CATALOG NO.:	MS E-5400
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Corticosterone in serum and plasma
STANDARD RANGE:	0/5–240 nmol/l
SENSITIVITY:	1,63 nmol/l
SAMPLE VOLUME:	20 µl serum or plasma

PLASMA RENIN ACTIVITY (PRA) ELISA

CATALOG NO.:	MS E-5600
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Plasma Renin Activity in human plasma
STANDARD RANGE:	0/0.2–60 ng/ml
SENSITIVITY:	0.14 ng/ml
SAMPLE VOLUME:	500 µl plasma

25-OH-VITAMIN D (TOTAL) ELISA

CATALOG NO.:	MS E-5800
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of total 25-OH Vitamin D (Vitamin D2 and Vitamin D3) in serum and plasma
STANDARD RANGE:	0/5–120 ng/ml
SENSITIVITY:	3,224 ng/ml
SAMPLE VOLUME:	50 µl serum or plasma

THYROID FUNCTION *ELISA*

TSH ELISA ^{2ND GENERATION}

CATALOG NO.:	TF E-2000
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Thyroid Stimulating Hormone (TSH) in human serum or heparin plasma
STANDARD RANGE:	0/0.25–15 mIU/l
SENSITIVITY:	0.06 mIU/l
SAMPLE VOLUME:	25 µl serum or plasma

FT3 ELISA ^{2ND GENERATION}

CATALOG NO.:	TF E-2100
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Free Triiodothyronine (fT3) in human serum
STANDARD RANGE:	0/2–40 pg/ml
SENSITIVITY:	0.3 pg/ml
SAMPLE VOLUME:	25 µl serum

FT4 ELISA 2ND GENERATION

CATALOG NO.: TF E-2200
 DETERMINATIONS: 96
 DESCRIPTION: ELISA for the quantitative determination of Free Thyroxine (fT4) in human serum
 STANDARD RANGE: 0/2–80 pg/ml
 SENSITIVITY: 1.0 pg/ml
 SAMPLE VOLUME: 25 µl serum

T3 ELISA 2ND GENERATION

CATALOG NO.: TF E-2300
 DETERMINATIONS: 96
 DESCRIPTION: ELISA for the quantitative determination of total Triiodothyronine (T3) in human serum and plasma
 STANDARD RANGE: 0/0.5–10 ng/ml
 SENSITIVITY: < 0.1 ng/ml
 SAMPLE VOLUME: 50 µl serum or plasma

T4 ELISA 2ND GENERATION

CATALOG NO.: TF E-2400
 DETERMINATIONS: 96
 DESCRIPTION: ELISA for the quantitative determination of total Thyroxine (T4) in human serum and plasma
 STANDARD RANGE: 0/25–250 nmol/l
 SENSITIVITY: 8.0 nmol/l
 SAMPLE VOLUME: 10 µl serum or plasma

Reverse T3 (rT3) ELISA

CATALOG NO.: TF E-2500
 DETERMINATIONS: 96
 DESCRIPTION: ELISA for the direct quantitative determination of Reverse Triiodothyronine (rT3) in human serum and plasma
 STANDARD RANGE: 0/0.02–2 ng/ml
 SENSITIVITY: 0.014 ng/ml
 SAMPLE VOLUME: 25 µl serum or plasma

TUMOR MARKERS *ELISA***CEA ELISA**

CATALOG NO.: TM E-4100
 DETERMINATIONS: 96
 DESCRIPTION: ELISA for the quantitative determination of Carcino Embryonic Antigen in human serum and plasma
 STANDARD RANGE: 0/5–100 ng/ml
 SENSITIVITY: < 0.596 ng/ml
 SAMPLE VOLUME: 50 µl serum or plasma

CA 125 ELISA

CATALOG NO.: TM E-4300
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Ovarian Cancer Antigen (CA125) in human serum and plasma
STANDARD RANGE: 0/25–600 U/ml
SENSITIVITY: 0.25 U/ml
SAMPLE VOLUME: 50 µl serum or plasma

CA 15-3 ELISA

CATALOG NO.: TM E-4400
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of CA 15-3 in human serum and plasma
STANDARD RANGE: 0/25–200 U/ml
SENSITIVITY: 0.50 U/ml
SAMPLE VOLUME: 10 µl serum or plasma

CA 19-9 ELISA

CATALOG NO.: TM E-4500
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of CA 19-9 in human serum and plasma
STANDARD RANGE: 0/15–240 U/ml
SENSITIVITY: 0.2 U/ml
SAMPLE VOLUME: 50 µl serum or plasma

β2-MICROGLOBULIN ELISA

CATALOG NO.: TM E-4600
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of
STANDARD RANGE: 0/0.2–10 mg/l
SENSITIVITY: 0.1 mg/l
SAMPLE VOLUME: 20 µl serum

hNSE ELISA

CATALOG NO.: TM E-4700
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Neuron Specific Enolase in human serum
STANDARD RANGE: 0/4–100 ng/ml
SENSITIVITY: 0.19 ng/ml
SAMPLE VOLUME: 25 µl serum

CHROMOGRANIN A ELISA

CATALOG NO.: TM E-9000
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Chromogranin A in human serum
STANDARD RANGE: 0/30–900 ng/ml
SENSITIVITY: 6.5 ng/ml
SAMPLE VOLUME: 50 µl serum

DISEASE MARKERS ELISA

CRP ELISA

CATALOG NO.:	DM E-4600
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative and determination of C-reactive Protein in human serum
STANDARD RANGE:	0/100 – 10000 ng/ml
SENSITIVITY:	10 ng/ml
SAMPLE VOLUME:	20 µl of prediluted (1:20) serum

SALIVA ASSAYS *ELISA*

CORTISOL SALIVA ELISA ^{FREE}

CATALOG NO.:	SA E-6000
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Cortisol in saliva
STANDARD RANGE:	0/0.1 – 30 ng/ml
SENSITIVITY:	0.019 ng/ml
SAMPLE VOLUME:	50 µl saliva

TESTOSTERONE SALIVA ELISA ^{FREE}

CATALOG NO.:	SA E-6100
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Testosterone in saliva
STANDARD RANGE:	0/10 – 1000 pg/ml
SENSITIVITY:	2.2 pg/ml
SAMPLE VOLUME:	100 µl saliva

ESTRADIOL SALIVA ELISA ^{FREE}

CATALOG NO.: SA E-6200
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Estradiol in saliva
STANDARD RANGE: 0/1 – 100 pg/ml
SENSITIVITY: 0.21 pg/ml
SAMPLE VOLUME: 100 µl saliva

PROGESTERONE SALIVA ELISA ^{FREE}

CATALOG NO.: SA E-6300
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Progesterone in saliva
STANDARD RANGE: 2400 pg/ml
SENSITIVITY: 1.1 pg/ml
SAMPLE VOLUME: 100 µl saliva

17-OH-PROGESTERONE SALIVA ELISA ^{FREE}

CATALOG NO.: SA E-6400
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of 17-OH-Progesterone in saliva
STANDARD RANGE: 0/10 – 1000 pg/ml
SENSITIVITY: 2.5 pg/ml
SAMPLE VOLUME: 25 µl saliva

DHEA-S SALIVA ELISA ^{FREE}

CATALOG NO.: SA E-6500
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of DHEA-S in saliva
STANDARD RANGE: 0/0.2 – 12 ng/ml
SENSITIVITY: 0.05 ng/ml
SAMPLE VOLUME: 50 µl saliva

FREE ESTRIOL SALIVA ELISA ^{FREE}

CATALOG NO.: SA E-6600
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Free Estriol in saliva
STANDARD RANGE: 0/2.5 – 4000 pg/ml
SENSITIVITY: 1.4 pg/ml
SAMPLE VOLUME: 50 µl saliva

ANDROSTENEDIONE SALIVA ELISA^{FREE}

Catalogue No.: SA E-6700
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Androstenedione in saliva
STANDARD RANGE: 0/20–1000 pg/ml
SENSITIVITY: 5 pg/ml
SAMPLE VOLUME: 50 µl saliva

IGA SALIVA ELISA

Catalogue No.: SA E-6800
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Immunglobulin A in saliva
STANDARD RANGE: 0/6.9–400 µg/ml
SENSITIVITY: 0.5 µg/ml
SAMPLE VOLUME: 25 µl saliva

ALPHA-AMYLASE SALIVA ELISA

Catalogue No.: SA E-6900
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Alpha-Amylase in saliva
STANDARD RANGE: 0/10–500 U/ml
SENSITIVITY: 3.6 U/ml
SAMPLE VOLUME: 20 µl of prediluted (1:201) saliva

DHEA SALIVA ELISA

CATALOG NO.: SA E-7000
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of DHEA in saliva
STANDARD RANGE: 0/10–2560 pg/ml
SENSITIVITY: 3.7 pg/ml
SAMPLE VOLUME: 100 µl saliva

ESTRONE SALIVA ELISA

CATALOG NO.: SA E-7100
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Estrone saliva
STANDARD RANGE: 0/3–333 pg/ml
SENSITIVITY: 1.073 pg/ml
SAMPLE VOLUME: 100 µl saliva

SALI SET 100

CATALOG NO.: SA D-6100
DETERMINATIONS: 100 sets for the collection of saliva samples

SALI SET 500

CATALOG NO.: SA D-6500
DETERMINATIONS: 500 sets for the collection of saliva samples

RESEARCH ASSAYS *ELISA*

TESTOSTERONE MOUSE/RAT ELISA

CATALOG NO.: AR E-8000
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Testosterone in rat or mouse serum and plasma samples
STANDARD RANGE: 0/0.1–25 ng/ml
SENSITIVITY: 0.066 ng/ml
SAMPLE VOLUME: 10 µl serum or plasma

CORTICOSTERONE MOUSE/RAT ELISA

CATALOG NO.: AR E-8100
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Corticosterone in rat or mouse serum and plasma samples
STANDARD RANGE: 0/15–2250 ng/ml
SENSITIVITY: 6.1 ng/ml
SAMPLE VOLUME: 10 µl serum or plasma

PROLACTIN RAT ELISA

CATALOG NO.: AR E-8200
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Prolactin in rat serum samples
STANDARD RANGE: 0/5–80 ng/ml
SENSITIVITY: 0.6 ng/ml
SAMPLE VOLUME: 25 µl serum

ESTRONE-3-SULFATE EQUINE ELISA

CATALOG NO.: AR E-8300
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Estrone-3-Sulfate in equine serum samples
STANDARD RANGE: 0/5–1000 ng/ml
SENSITIVITY: 0.14 ng/ml
SAMPLE VOLUME: 20 µl serum

PROLACTIN CANINE ELISA

CATALOG NO.: AR E-8400
DETERMINATIONS: 96
DESCRIPTION: ELISA for the quantitative determination of Prolactin in canine serum samples
STANDARD RANGE: 0/2.5–80 ng/ml
SENSITIVITY: 0.4 ng/ml
SAMPLE VOLUME: 25 µl serum

TSH CANINE ELISA

CATALOG NO.:	AR E-8500
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of TSH in canine serum and plasma samples
STANDARD RANGE:	0/0.2–5.2 ng/ml
SENSITIVITY:	0.01 ng/ml
SAMPLE VOLUME:	100 µl serum or plasma

TSH RAT ELISA

CATALOG NO.:	AR E-8600
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of TSH in rat serum samples
STANDARD RANGE:	0/2.5–80 ng/ml
SENSITIVITY:	0.1 ng/ml
SAMPLE VOLUME:	25 µl serum

PROGESTERONE MOUSE/RAT ELISA

CATALOG NO.:	AR E-8700
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Progesterone in rat or mouse serum and plasma samples
STANDARD RANGE:	0/0.4–100 ng/ml
SENSITIVITY:	0.04 ng/ml
SAMPLE VOLUME:	25 µl serum or plasma

ESTRADIOL RAT ELISA

CATALOG NO.:	AR E-8800
DETERMINATIONS:	96
DESCRIPTION:	ELISA for the quantitative determination of Estradiol in rat serum and plasma samples
STANDARD RANGE:	0/5–1280 pg/ml
SENSITIVITY:	2.5 pg/ml
SAMPLE VOLUME:	75 µl serum

RAT CONTROL SET

CATALOG NO.:	AR K-8000
DETERMINATIONS:	96
DESCRIPTION:	Two levels of Testosterone, Corticosterone, Prolactin, TSH, Progesterone and Estradiol in rat serum
SAMPLE VOLUME:	2 vials à 1 ml

CANINE CONTROL SET

CATALOG NO.:	AR K-8500
DETERMINATIONS:	96
DESCRIPTION:	Two levels of canine Prolactin and TSH
SAMPLE VOLUME:	2 vials à 1 ml

GLUTAMATE ELISA

CATALOG NO.:	BA E-2400
DETERMINATIONS:	96
DESCRIPTION:	Enzyme immunoassay (ELISA) for the quantitative determination of Glutamate in various biological samples
STANDARD RANGE:	0/0.6–60 µg/ml
SENSITIVITY:	0.3 µg/ml
SAMPLE VOLUME:	100 µl serum or plasma (1:5 diluted), cell cultures and tissue homogenates

GABA ELISA

CATALOG NO.:	BA E-2500
DETERMINATIONS:	96
DESCRIPTION:	Enzyme immunoassay (ELISA) for the quantitative determination of Gamma-aminobutyric acid (GABA) in human plasma, serum, urine and various biological samples
STANDARD RANGE:	0/25 - 2500 ng/ml or 0/75 - 7500 ng/ml
SENSITIVITY:	49 ng/ml (urine)
SAMPLE VOLUME:	100 - 300 µl plasma, cell cultures and tissue homogenates

GLYCINE ELISA

CATALOG NO.:	BA E-2100
DETERMINATIONS:	96
DESCRIPTION:	Enzyme immunoassay (ELISA) for the quantitative determination of Glycine in urine
STANDARD RANGE:	0/10–1000 µg/ml
SENSITIVITY:	3.3 µg/ml
SAMPLE VOLUME:	20 µl urine

KYNURENINE ELISA

CATALOG NO.:	BA E-2200
DETERMINATIONS:	96
DESCRIPTION:	Enzyme immunoassay (ELISA) for the quantitative determination of Kynurenine in serum, plasma and various biological samples
STANDARD RANGE:	0/100–10000 ng/ml
SENSITIVITY:	45.7 ng/ml
SAMPLE VOLUME:	10 µl serum or plasma

CITRULLINE ELISA

CATALOG NO.:	BA E-2800
DETERMINATIONS:	96
DESCRIPTION:	Enzyme Immunoassay (ELISA) for the quantitative determination of Citrulline in serum, plasma, urine and various biological samples
STANDARD RANGE:	0/0.6–60 µg/ml
SENSITIVITY:	0.23 µg/ml
SAMPLE VOLUME:	50 µl serum/plasma (prediluted 1:4); 50 µl urine

ADRENALINE RESEARCH ELISA

CATALOG NO.:	BA E-5100
DETERMINATIONS:	96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative and ultra sensitive determination of Adrenaline (Epinephrine) in any species and various biological samples
STANDARD RANGE:	0/0.5–80 ng/ml
SENSITIVITY:	3.3 pg/ml (depending on sample volume)
SAMPLE VOLUME:	1 – 750 µl, all biological fluids

NORADRENALINE RESEARCH ELISA

CATALOG NO.:	BA E-5200
DETERMINATIONS:	96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative and ultra sensitive determination of Noradrenaline (Norepinephrine) in any species and various biological samples
STANDARD RANGE:	0/0.2–32 ng/ml
SENSITIVITY:	1.3 pg/ml (depending on sample volume)
SAMPLE VOLUME:	1 – 750 µl, all biological fluids

DOPAMINE RESEARCH ELISA

CATALOG NO.:	BA E-5300
DETERMINATIONS:	96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative and ultra sensitive determination of Dopamine in any species and various biological samples
STANDARD RANGE:	0/0.5–80 ng/ml
SENSITIVITY:	3.3 pg/ml (depending on sample volume)
SAMPLE VOLUME:	1 – 750 µl, all biological fluids

2-CAT (A-N) RESEARCH ELISA

CATALOG NO.:	BA E-5400
DETERMINATIONS:	2 × 96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative and ultra sensitive determination of Adrenaline (Epinephrine) and Noradrenaline (Norepinephrine) in any species and various biological samples
STANDARD RANGE:	Adrenaline: 0/0.5–80 ng/ml; Noradrenaline: 0/0.2–32 ng/ml
SENSITIVITY:	Adrenaline: 6.6 pg/ml; Noradrenaline: 2.6 pg/ml (depending on sample volume)
SAMPLE VOLUME:	1 – 750 µl, all biological fluids

2-CAT (N-D) RESEARCH ELISA

CATALOG NO.:	BA E-5500
DETERMINATIONS:	2 × 96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative and ultra sensitive determination of Dopamine and Noradrenaline (Norepinephrine) in any species and various biological samples
STANDARD RANGE:	Noradrenaline: 0/0.2–32 ng/ml; Dopamine: 0/0.5–80 ng/ml
SENSITIVITY:	Noradrenaline: 2.6 pg/ml; Dopamine: 6.6 pg/ml (depending on sample volume)
SAMPLE VOLUME:	1 – 750 µl, all biological fluids

3-CAT RESEARCH ELISA

CATALOG NO.:	BA E-5600
DETERMINATIONS:	3 × 96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative and ultra sensitive determination of Adrenaline (Epinephrine), Noradrenaline (Norepinephrine), and Dopamine in any species and various biological samples
STANDARD RANGE:	Adrenaline, Dopamine: 0/0.5–80 ng/ml; Noradrenaline: 0/0.2–32 ng/ml
SENSITIVITY:	Adrenaline: 10 pg/ml; Noradrenaline: 4 pg/ml; Dopamine: 10 pg/ml (depending on sample volume)
SAMPLE VOLUME:	1 – 750 µl, all biological fluids

HISTAMINE RESEARCH ELISA

CATALOG NO.:	BA E-5800
DETERMINATIONS:	96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative determination of Histamine in any species and various biological samples
STANDARD RANGE:	0/0.5–50 ng/ml
SENSITIVITY:	0.2 ng/ml
SAMPLE VOLUME:	10 - 25 µl, different animal species and biological samples

SEROTONIN RESEARCH ELISA

CATALOG NO.:	BA E-5900
DETERMINATIONS:	96
DESCRIPTION:	Research enzyme immunoassay (ELISA) for the quantitative ultra sensitive determination of Serotonin in any species and various biological samples
STANDARD RANGE:	0/0.015–2.5 ng/ml
SENSITIVITY:	5 pg/ml (depending on sample volume)
SAMPLE VOLUME:	1 – 100 µl, all biological fluids

GUIDELINES FOR THE VALIDATION OF LDN'S IMMUNOASSAYS FOR BIOLOGICAL SAMPLES

All of LDN's Biogenic Amines assays are based on an extraction and/or derivatization procedure yielding highly specific test systems. As the Biogenic Amines chemical structure is totally conserved all throughout nature there is, in principle, no limit for the use of these assays with any sample. Over the years LDN has gathered a lot of experience with many different specimens, which is demonstrated by a vast number of publications and a well-experienced laboratory staff.

In any case, if you set-up a validation protocol for any off-label use please contact us – we might be able to give you some helpful support. In many cases the kit will work without modification but in some cases some modification has to be introduced for optimal performance.

1. The first step in the validation for a specific sample is to demonstrate parallelism. The specimen has to be diluted serially with the matrix of the kit (the zero-standard). The results of the serial dilutions are plotted on a graph and if the dilutions parallel the standard curve the matrix is compatible.
2. Next the performance of recovery studies is highly recommended. Ideally an increasing amount of the analyte is added to the native sample and with the increasing concentration of the analyte the read concentrations should increase linearly.
3. Depending on the target of the study it might be necessary to establish a normal range for that special specimen. Also, in many cases the sensitivity of the assay system has to be improved. This may be accomplished by modification of incubation time and/or temperature, sample volume, or dilution of some reagents.

FOOD SAFETY

Histamine is a product of decomposition of histidine caused by the growth of certain bacteria in seafood. Fish containing high levels of histamine has been associated with many examples of poisoning commonly referred to as “scombroid poisoning”, a major health problem for consumers. LDN’s trademark HistaSure™ stands for a group of assays based on ELISA or lateral flow technologies for the quantitative and/or semi- quantitative determination of Histamine in all kind of food – with focus on different kinds of fish samples, seafood and fish sauce.

The corresponding sample preparation protocols are based on simple extractions with water and follow the AOAC Official Method 937.07. On a regular base LDN participates at external quality assessment schemes.

HISTASURE™ ELISA HIGH SENSITIVE

CATALOG NO.: FC E-3100
DETERMINATIONS: 96
DESCRIPTION: Enzyme immunoassay (ELISA) for the quantitative determination of Histamine in food
STANDARD RANGE: depends on kind of sample
SENSITIVITY: 0.15 µg/l
SAMPLE VOLUME: 1 g fish meal; 10 g fresh fish, sausage, cheese; 10 µl milk; 20 µl wine

HISTASURE™ ELISA FAST TRACK

DETERMINATIONS: 48 (FC E-3600) tests
 480 (FC E-3900) tests
DESCRIPTION: FAST TRACK Enzyme immunoassay (ELISA) for the quantitative determination of Histamine in fish and fish meal
STANDARD RANGE: 0/3.0–300 ppm
SENSITIVITY: 0.44 ppm
SAMPLE VOLUME: 10 g fresh fish, frozen fish, canned fish, and fish meal



HISTASURE™ FISH RAPID TEST

CATALOG NO.: FC L-3200

DETERMINATIONS: 24

DESCRIPTION: Lateral flow assay (immunogold-labelling) for the semi-quantitative determination of Histamine in different kinds of fish samples

STANDARD RANGE: Cut-off pre-set at 50 ppm - Adjustable

SAMPLE VOLUME: 10 g fish

HISTAMINE CONTROLS

3 different concentration levels for Histamine testing in fish samples. Each vial contains 0.5 ml of an extracted fish sample (tuna) with the following defined Histamine concentrations:

FC C-0051: 0 ppm

FC C-0052: 50 ppm

FC C-0053: 100 ppm

APPLICATION GUIDE *CATECHOLAMINE ASSAYS*

CATECHOLAMINE ASSAYS *RESEARCH APPLICATION*

SAMPLE	AVAILABLE SAMPLE VOLUME	RECOMMENDED ASSAY	AVAILABLE ASSAY TYPE	ALTERNATIVES: ASSAYS WITH MORE SENSITIVITY
URINE	10 µl →	Serial BA 6000	RIA/ELISA →	Serial BA 5000
	< 10 µl →	Serial BA 5000	ELISA →	contact: support@ldn.de
PLASMA	300 µl →	Serial BA 6000	RIA/ELISA →	Serial BA 5000
	< 300 µl or > 600 µl →	Serial BA 5000	ELISA →	contact: support@ldn.de
OTHER	1 – 750 µl →	Serial BA 5000	ELISA →	As the sensitivity depends on the sample volume a detailed knowledge of the applicable sample volume is advisable. Please contact support@ldn.de and our specialists will assist you to implement the best protocol.
			ELISA →	

The sensitivity of the Catecholamine Research ELISAs is determined by the the extracted sample volume

CATECHOLAMINE ASSAYS FOR CLINICAL USE

SAMPLE	REQUIRED SAMPLE VOLUME	RECOMMENDED ASSAY	AVAILABLE ASSAY TYPE	TOTAL ASSAY TIME
URINE AND /OR PLASMA	10 µl urine / 300 µl plasma →	Serial BA 6000	RIA/ELISA	RIA 4 h or ON; ELISA 5 h

OVERVIEW *IVD AND RUO KITS*

PRODUCT	CATALOGUE NO.	AVAILABLE AS
17-OH-Progesterone ELISA	FR E-2800	CE or RUO labelled kit
17-OH-Progesterone Saliva ELISA	SA E-6400	CE or RUO labelled kit
25-OH-Vitamin D (total) ELISA	MS E-5800	CE or RUO labelled kit
2-CAT (A-N) Research ELISA	BA E-5400	RUO labelled kit
2-CAT (N-D) Research ELISA	BA E-5500	RUO labelled kit
2-CAT ELISA <i>FAST TRACK</i>	BA E-6500	CE or RUO labelled kit
2-CAT RIA <i>FAST TRACK</i>	BA R-6500	CE or RUO labelled kit
2-MET Plasma ELISA <i>FAST TRACK</i>	BA E-8300	CE or RUO labelled kit
2-MET Plasma RIA <i>FAST TRACK</i>	BA R-8300	CE or RUO labelled kit
2-MET Urine ELISA <i>FAST TRACK</i>	BA E-8600	CE or RUO labelled kit
2-MET Urine RIA <i>FAST TRACK</i>	BA R-8600	CE or RUO labelled kit

Within the European Economic Area CE-labeled products/kits are in vitro diagnostics (IVD). Outside of the European Union the classification of the products/kits into IVD or for Research Use Only (RUO) depends on that respective nation's regulations.

The corresponding classification is indicated on the kit label.

3-CAT ELISA FAST TRACK	BA E-6600	CE or RUO labelled kit
3-CAT Research ELISA	BA E-5600	RUO labelled kit
3-CAT RIA FAST TRACK	BA R-6600	CE or RUO labelled kit
5-HIAA ELISA	BA E-1900	CE or RUO labelled kit
Active Renin ELISA	MS E-5300	CE or RUO labelled kit
Adrenaline ELISA FAST TRACK	BA E-6100	CE or RUO labelled kit
Adrenaline Research ELISA	BA E-5100	RUO labelled kit
Alpha-Amylase Saliva ELISA	SA E-6900	CE or RUO labelled kit
Aldosterone ELISA	MS E-5200	CE or RUO labelled kit
Androstenediol-Glucuronide ELISA	AA E-1500	CE or RUO labelled kit
Androstenedione ELISA	AA E-1000	CE or RUO labelled kit
Androstenedione Saliva ELISA	SA E-6700	CE or RUO labelled kit
CA 125 ELISA	TM E-4300	CE or RUO labelled kit
CA 15.3 ELISA	TM E-4400	CE or RUO labelled kit
CA 19.9 ELISA	TM E-4500	CE or RUO labelled kit
CEA ELISA	TM E-4100	CE or RUO labelled kit
Citrulline ELISA	BA E-2800	RUO labelled kit
Chromogranin A ELISA	TM E-9000	CE or RUO labelled kit
Corticosterone ELISA	MS E-5400	CE or RUO labelled kit
Corticosterone Mouse/Rat ELISA	AR E-8100	RUO labelled kit
Cortisol ELISA	MS E-5000	CE or RUO labelled kit
Cortisol Saliva ELISA	SA E-6000	CE or RUO labelled kit
Cortisol Urine ELISA	MS E-5100	CE or RUO labelled kit
C-Peptide ELISA	ME E-0100	CE or RUO labelled kit
CRP High Sensitive ELISA	DM E-4600	CE or RUO labelled kit
DHEA ELISA	AA E-1600	CE or RUO labelled kit
DHEA Saliva ELISA	SA E-7000	CE or RUO labelled kit
DHEA-S ELISA	AA E-1100	CE or RUO labelled kit
DHEA-S Saliva ELISA	SA E-6500	CE or RUO labelled kit
DHT ELISA	AA E-1700	CE or RUO labelled kit
Dopamine ELISA FAST TRACK	BA E-6300	CE or RUO labelled kit
Dopamine Research ELISA	BA E-5300	RUO labelled kit
Estradiol ELISA	FR E-2000	CE or RUO labelled kit
Estradiol Rat	AR E-8800	RUO labelled kit
Estradiol Saliva ELISA	SA E-6200	CE or RUO labelled kit
Estrone ELISA	FR E-2300	CE or RUO labelled kit
Estrone Saliva ELISA	SA E-7100	CE or RUO labelled kit
Estrone-3-Sulfate Equine ELISA	AR E-8300	RUO labelled kit
Free Estriol ELISA	FR E-2100	CE or RUO labelled kit
Free Estriol Saliva ELISA	SA E-6600	CE or RUO labelled kit
Free Testosterone ELISA	AA E-1800	CE or RUO labelled kit
ft3 ELISA 2ND GENERATION	TF E-2100	CE or RUO labelled kit
ft4 ELISA 2ND GENERATION	TF E-2200	CE or RUO labelled kit
GABA ELISA	BA E-2500	RUO labelled kit
Glutamate ELISA	BA E-2400	RUO labelled kit
Glycine ELISA	BA E-2100	RUO labelled kit
hGH ELISA	ME E-0200	CE or RUO labelled kit
Histamine ELISA	BA E-1000	CE or RUO labelled kit
Histamine Research ELISA	BA E-5800	RUO labelled kit
IgA Saliva ELISA	SA E-6800	CE or RUO labelled kit
hNSE ELISA	TM E-4700	CE or RUO labelled kit

IGF-1 ELISA	ME E-0500	CE or RUO labelled kit
IGFBP-1 ELISA	ME E-0400	CE or RUO labelled kit
Insulin ELISA	ME E-0900	CE or RUO labelled kit
Kynurenine ELISA	BA E-2200	CE or RUO labelled kit
Leptin ELISA	ME E-0300	CE or RUO labelled kit
Metanephrine Plasma ELISA FAST TRACK	BA E-8100	CE or RUO labelled kit
Metanephrine Urine ELISA FAST TRACK	BA E-8400	CE or RUO labelled kit
Noradrenaline ELISA FAST TRACK	BA E-6200	CE or RUO labelled kit
Noradrenaline Research ELISA	BA E-5200	RUO labelled kit
Normetanephrine Plasma ELISA FAST TRACK	BA E-8200	CE or RUO labelled kit
Normetanephrine Urine ELISA FAST TRACK	BA E-8500	CE or RUO labelled kit
Plasma Renin Activity (PRA) ELISA	MS E-5600	CE or RUO labelled kit
Pregnenolone ELISA	FR E-2700	CE or RUO labelled kit
Progesterone ELISA	FR E-2500	CE or RUO labelled kit
Progesterone Mouse/Rat	AR E-8700	RUO labelled kit
Progesterone Saliva ELISA	SA E-6300	CE or RUO labelled kit
Prolactin Canine ELISA	AR E-8400	RUO labelled kit
Prolactin Rat ELISA	AR E-8200	RUO labelled kit
Reverse T3 (rT3) ELISA	TF E-2500	CE or RUO labelled kit
Sali Set 100	SA D-6100	CE or RUO labelled kit
Sali Set 500	SA D-6500	CE or RUO labelled kit
Serotonin ELISA FAST TRACK	BA E-8900	CE or RUO labelled kit
Serotonin Research ELISA	BA E-5900	RUO labelled kit
Serotonin RIA FAST TRACK	BA R-8900	CE or RUO labelled kit
SHBG ELISA	AA E-1200	CE or RUO labelled kit
T3 ELISA 2ND GENERATION	TF E-2300	CE or RUO labelled kit
T4 ELISA 2ND GENERATION	TF E-2400	CE or RUO labelled kit
Testosterone ELISA	AA E-1300	CE or RUO labelled kit
Testosterone Mouse/Rat ELISA	AR E-8000	RUO labelled kit
Testosterone Saliva ELISA	SA E-6100	CE or RUO labelled kit
Tryptophan ELISA	BA E-2700	CE or RUO labelled kit
TSH Canine ELISA	AR E-8500	RUO labelled kit
TSH ELISA 2ND GENERATION	TF E-2000	CE or RUO labelled kit
TSH Rat ELISA	AR E-8600	RUO labelled kit
β2-Microglobulin ELISA	TM E-4600	CE or RUO labelled kit

FOOD SAFETY

PRODUCT	CATALOGUE NO.
HistaSure™ ELISA High-sensitive	FC E-3100
HistaSure™ ELISA Fast Track	FC E-3600, FC E-3900
HistaSure™ Fish Rapid Test	FC L-3200

ABOUT US

WHO WE ARE AND WHAT WE DO

LDN was founded in 1996 in Nordhorn, Germany, with the aim to develop, manufacture and supply specialty in vitro diagnostics test systems and innovative technologies to the clinical and research laboratory markets. From the beginning the determination of Biogenic Amines with immunological test systems was in the core of our business – where we are nowadays the world wide market leader. Integral part of this success are e.g. our assays for the quantitative determination of Free Metanephrines in plasma, the Catecholamines, Histamine and Serotonin. This positive outcome encouraged us to expand our business to related diagnostic areas such as Food Control HistaSure, Neurotransmitters and Amino Acids. Next, LDN introduced a comprehensive Endocrinological panel, especially also for niche parameters e.g. Free Testosterone, 17-OH-Progesterone, Chromogranin A, DHT, Estrone.

We continue to innovate on a consistent base new assays for the medical and scientific lab.

LDN products are distributed in over 90 countries by a network of OEM partners and distributors and in North America through our daughter company Rocky Mountain Diagnostics.

Our focus aside from selling great products is to support them. Our concern is your satisfaction and confidence in using the latest and newest technologies from our company. Our team is highly trained and experienced as both end users and developers. We believe this philosophy gives our support, in addition to efficiency, a personal touch exclusive to our products. We guarantee a 24-hour turnaround time on most all technical inquiries. Our company is privately owned, thus making our customers the number one priority. As such, we provide our customers with the best possible products and services.

We have meanwhile finished our facility expansion which increased our laboratory, office and warehouse space from 3,600 to 16,000 sq.ft.. Aside from spacious production facilities, R&D and QC laboratories, we have also doubled our refrigeration capacity from 900 to 1,600 sq.ft.. At our disposal is also a seminar room and a fully equipped customer training area.

We look forward to having you as our guests in our headquarters!



WE ARE ABLE TO OFFER OUR CUSTOMERS THE LATEST PRODUCTS AND SERVICES INCLUDING:

- Immunodiagnostic assays for the research and routine laboratory
- Research reagents
- Contract manufacturing
- Specialized contract analysis of biomedical samples

QUALITY AND RELIABILITY

LDN has developed an extensive internal quality assurance program and our facilities are DIN ISO 13485 and 9001 certified. LDN participates on a regular in national (e.g. INSTAND) and international quality assessment programs. All in vitro diagnostics fulfil the regulations of the European Directive 98/79/EC (CE).

OUR MISSION STATEMENT

LDN is dedicated to exceeding our customers' expectations in terms of the quality of the products and services we provide.

LDN'S MISSION IS TO:

- Maintain a quality management system that meets the EN ISO 13485 and 9001 certification standards.
- Dedicate ourselves to a strategy of continuous improvement.
- Constantly seek to understand the expectations of our customers and strive to exceed those expectations at every juncture.
- Ensure that all LDN employees thoroughly understand and adhere to the spirit and the letter of the company's quality policy, as well as the directives of the quality manual and its subordinate documents.
- Innovate – true to the motto: We lead – others follow!

GENERAL TERMS AND CONDITIONS

I In General

By placing an order the customer accepts our General Terms and Conditions (GTC). Each agreement which deviates from the GTC requires our confirmation in written form. The delivery contract between the customer and LDN becomes legal with our written order confirmation.

II License Requirements for RIA Customers

In compliance with German Regulations, a copy of the customer's current radioisotope license must be on file with LDN. The license may either be mailed or faxed to the Order Entry Department at LDN. Orders cannot be shipped until the license is received by Order Entry (Radiation Protection Act of June 30, 1989).

III Prices

Prices are quoted – unless otherwise agreed – ex works and do not include applicable taxes, costs for customs clearing or shipment. All prices are subject to change without prior notice.

IV Terms of Payment

For customers located in Germany the invoices have to be paid at 30 days net unless other arrangements have been made with LDN prior to shipment. International orders require payment in advance until a credit history has been established with LDN or unless other arrangements have been made with LDN prior to shipment. Payment is not valid until we have the total amount on our account. If the terms of payment are not followed LDN keeps the right to stop the delivery.

V Proprietary Rights

LDN keeps the ownership of the goods delivered until our claims have been fully paid. Preventive transference and preventive sale or mortgage of goods being reserved as our property is inadmissible.

VI Deliveries

All deliveries are being affected at the buyer's risk. LDN does not take on any responsibility for damages during transport and its consequences and refuse any compensation. LDN is exempt from any delivery obligations in cases of circumstances, which to sort is beyond our control and which make it impossible or unacceptable for us to execute delivery. Further claims, especially entitlements to compensation due to non-delivery or late delivery as well as for any other real or legal reason are rejected.

VII Claims and Returns

All incidents of shortage, breakage, or any other product damage have to be reported to us within 5 days of receipt of goods. LDN will not honour any claims reported after the five-day period. Customers are responsible for cargo insurance and all other charges incurred. In the event of a claim for lost, delayed or damaged shipments, the customer must file the claim with the carrier and not hold LDN accountable. Report all shipping errors to LDN immediately. Should damage occur during shipping, please report the damage to both the carrier and LDN. LDN assumes no liability for loss or delay caused by strikes, accidents, delays of carrier, or other causes beyond LDN's control. No products may be returned to LDN unless prior authorization and shipping instructions have been obtained from LDN.

VIII Jurisdiction

The court of jurisdiction is Nordhorn, Germany.

Nordhorn, October 2019

IODINATION RELEASES 2020

(Note: Our RIAs have a shelf-life of 15 weeks!)

In 2020 there will be the following lot releases for isotopic assays:

Monday, March 02 nd	2020
Tuesday, June 02 nd	2020
Monday, August 31 th	2020
Monday, November 30 th	2020

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NOTES

GTC (GENERAL TERMS AND CONDITIONS= AGB)

HEAD OFFICE

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