

Medizym® anti-TPO

ELISA for the quantitative determination of IgG antibodies against thyroid peroxidase (TPO)



Product Highlights

- Serological marker for Hashimoto's thyroiditis
- Excellent diagnostic efficiency with high sensitivity and specificity
- Automatable

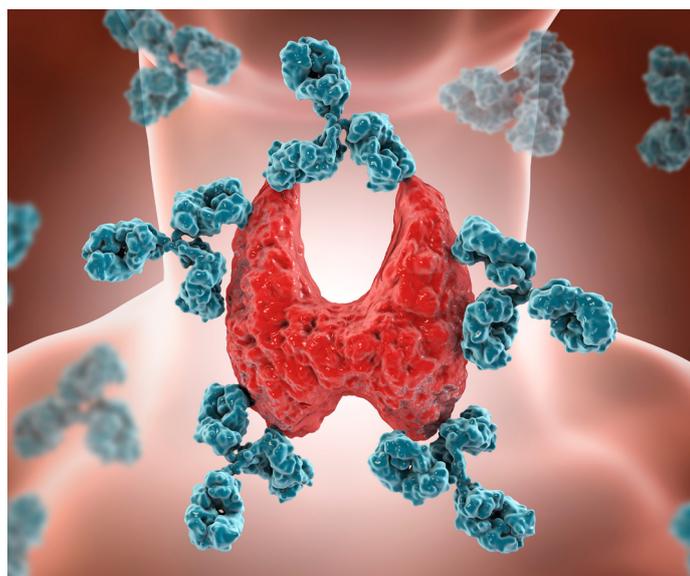
YOUR RELIABLE PARTNER IN AUTOIMMUNE DIAGNOSTICS

30 Years of Experience, 150 Partners in more than 100 Countries

Antibodies against Thyroid Peroxidase (TPO) and their Importance in the Diagnosis of Hashimoto's Thyroiditis

Hashimoto's Thyroiditis

Hashimoto's thyroiditis is a polyendocrine autoimmune disease characterized by chronic inflammation of the thyroid gland. Antibodies, in particular against thyroid peroxidase (TPO) and thyroglobulin (Tg), lead to the destruction of thyroid tissue and thus to hypothyroidism in the long term, although phases of hyperthyroidism can also appear at the beginning of the disease.



Epidemiology

Hashimoto's thyroiditis is one of the most common autoimmune diseases and the most common cause of hypothyroidism. Women are more often affected than men. The exact causes that lead to the onset of the disease have not yet been clarified, but in addition to genetic factors, stress and environmental influences, virus infections and excessive iodine intake have been discussed as potential causes.

Clinical Symptoms

The symptoms of Hashimoto's thyroiditis are diverse. Due to a possible hyperthyroidism at the beginning of the disease, nervousness, sweating, overactivity, increased appetite, weight loss, tachycardia and cardiac arrhythmias as well as arterial hypertension can be observed for a certain time. In the long term, however, the symptoms of an underactive thyroid gland predominate with fatigue, exhaustion, difficulty concentrating, depression, intolerance to cold, weight gain despite loss of appetite, constipation, menstrual disorders and bradycardia.

Diagnosis

The diagnosis is usually made on the basis of the clinical symptoms and confirmed by laboratory diagnostics by determining antibodies against thyroid peroxidase (TPO) and thyroglobulin (Tg). For the further assessment of the thyroid function, the activity of the thyroid hormones TSH (thyroid-stimulating hormone), T3 (triiodothyronine) and T4 (thyroxine) is determined. In addition, a sonography can be performed, thyroid tissue taken by biopsy can be analyzed histologically, or a scintigram can be created after administration of radioactively marked iodine preparations.

Therapy

Hashimoto's thyroiditis cannot be treated causally. If the thyroid gland can no longer produce sufficient amounts of thyroid hormones due to chronic inflammation, the administration of triiodothyronine (T3) and thyroxine (T4) can compensate the hypofunction.

Medizym® anti-TPO – Enzyme Immunoassay for the quantitative Determination of IgG Antibodies against Thyroid Peroxidase (TPO)

Antigen

The Medizym® anti-TPO immunoassay is based on the use of recombinant human thyroid peroxidase (TPO).

Calibration

The Medizym® anti-TPO immunoassay is calibrated using the international standard preparation NIBSC code 66/387. Quantitative results are expressed in IU/mL.

Precision

The precision of test results was assessed by the determination of the intra- and interassay variation by the analysis of multiple samples with different antibody activities.

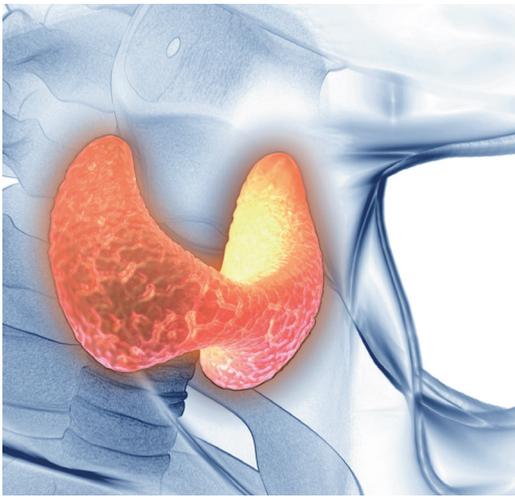
	INTRAASSAY PRECISION		INTERASSAY PRECISION	
	IU/mL	CV (%)	IU/mL	CV (%)
Sample 1	88	5.5	80	7.2
Sample 2	304	5.9	295	2.5
Sample 3	1570	6.5	1753	6.8

Diagnostic Sensitivity and Specificity

Sensitivity and specificity of the immunoassay were assessed by the analysis of 27 samples from patients with Hashimoto's thyroiditis and 144 samples from unselected blood donors.

	DIAGNOSTIC PERFORMANCE
Sensitivity	88.9 %
Specificity	92.4 %





Medizym® anti-TPO

Enzyme immunoassay for the quantitative determination of IgG antibodies against thyroid peroxidase (TPO) in human serum

HIGH QUALITY – MADE IN GERMANY

- Use of recombinant human thyroid peroxidase (TPO)
- Ready-to-use (exception: wash buffer) and barcoded reagents
- Quality assured handling in routine laboratories
- Incubation at room temperature
- Quantitative determination of IgG antibodies against human thyroid peroxidase (TPO)
- Calibrated with the international standard preparation NIBSC code 66/387
- Results expressed in IU/mL
- Excellent diagnostic sensitivity and specificity
- High precision within the measurement range
- CE marked
- Automatable

Product Information

Medizym® anti-TPO



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Order Information

Medizym® anti-TPO

(96 Determinations)

REF 3002