Datasheet for ABIN1326902

Anti-TPO IgG ELISA Kit

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Overview

Quantity:	96 tests
Target:	Anti-TPO IgG (TPO IgG)
Reactivity:	Human
Method Type:	Competition ELISA
Application:	ELISA

Product Details

Purpose:	Diluted patient serum is added to wells coated with purified TPO recombinant antigen. TPO IgG specific antibody, if present, binds to the antigen. All unbound materials are washed away and the enzyme conjugate is added to bind to the antibody-antigen complex, if present. Excess enzyme conjugate is washed off and substrate is added. The plate is incubated to allow the hydrolysis of the substrate by the enzyme. The intensity of the color generated is proportional to the amount of IgG specific antibody in the sample.
Sample Type:	Serum
Analytical Method:	Qualitative
Detection Method:	Colorimetric

Target Details

Target:	Anti-TPO IgG (TPO IgG)
Alternative Name:	Thyroid Peroxidase (TPO) IgG (TPO IgG Products)
Target Type:	Antibody, Antibody

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Target Details

Background:	Thyroid peroxidase (TPO), is the major autoantigen (933 amino acid residue) in the thyroid microsomal antigen (TMA) particle. The purification and preparation of this antigenhas made testing for TMA antibodies obsolete. Assays for TPO antibodies include ELISA, precipitation of radiolabeled TPO-bound autoantibodies with protein A, competition for TPO binding to immobilized anti-TPO murine monoclonal antibodies, autoantibody capture by TPO-coated beads and chemiluminescence. All tests correlate well with detection of TMA. ELISA using TPO recombinant antigen is the most popular assay.Detection of TPO antibodies is strong evidence against a goiter or non-autoimmune causes of hypothyroidism. The annual risk for the development of hypothyroidism is 3% to 4% per year if TPO antibodies are present and TSH is elevated.TPO antibodies are present in 8-9% normal controls, 57-74% patients with Graves disease, 99-100% of Hashimoto disease or idiopathic myxedema, 19% with differentiated thyroid cancer, no patients with subacute thyroiditis and 11% of those with other miscellaneous non-autoimmune thyroid diseases. The prevalence of positive TPO antibodies is higher in elderly (mean age 80 years) women (10%) compared to elderly men (2%).Autoantibody concentration in centenarians also decreases.Studies of TPO epitopes in each domain, A and B, and detection of their specific autoantibodies suggest that the epitope-specific TPO antibodies ratio (AB) does not change over time in inidual patients and that TPO epitope autoantibody patterns may be inherited.

Application Details

Plate:	Pre-coated
Restrictions:	For Research Use only

Handling

Storage:	4 °C

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