



# Rat Thyroid-Peroxidase, TPO ELISA Kit

Product Code	CSB-E08352r
Abbreviation	TPO
Protein Biological Process 1	Oxidative Stress
Target Name	thyroid peroxidase
Uniprot No.	P14650
Alias	MSA, TDH2A, TPX, OTTHUMP00000115536 thyroid microsomal antigen thyroperoxidase
Product Type	ELISA Kit
Immunogen Species	Rattus norvegicus (Rat)
Protein Biological Process 3	Hydrogen peroxide
Sample Types	serum, plasma, tissue Homogenates
Detection Range	2.5 ng/mL-40ng/mL
Sensitivity	2.5 ng/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Cancer
Gene Names	Tpo
Tag Info	quantitative
Protein Description	Competitive

Description	This Rat TPO ELISA Kit was designed for the quantitative measurement of Rat TPO protein in serum, plasma, tissue Homogenates. It is a Competitive ELISA kit, its detection range is 2.5 ng/mL-40ng/mL and the sensitivity is 2.5 ng/mL.
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Target Details	This gene encodes a membrane-bound glycoprotein. The encoded protein acts as an enzyme and plays a central role in thyroid gland function. The protein functions in the iodination of tyrosine residues in thyroglobulin and phenoxy-ester formation between pairs of iodinated tyrosines to generate the thyroid hormones, thyroxine and triiodothyronine. Mutations in this gene are associated with several disorders of thyroid hormonogenesis, including congenital hypothyroidism, congenital goiter, and thyroid hormone organification defect IIA. Multiple transcript variants encoding distinct isoforms have been identified for
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this gene. Additional splice variants have been described but their biological natures have not been determined.

### Product Precision

#### **Intra-assay Precision (Precision within an assay): CV%<8%**

Three samples of known concentration were tested twenty times on one plate to assess.

#### **Inter-assay Precision (Precision between assays): CV%<10%**

Three samples of known concentration were tested in twenty assays to assess.

### Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of rat TPO in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:1	Average %	93
	Range %	90-97
1:2	Average %	95
	Range %	84-99
1:4	Average %	90
	Range %	82-100
1:8	Average %	95
	Range %	89-100

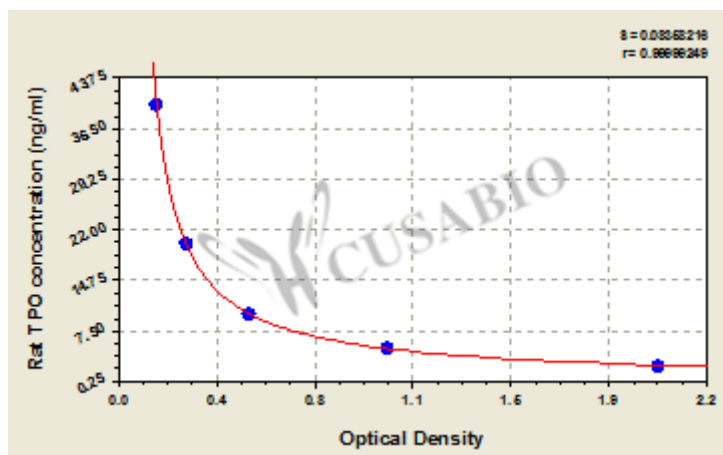
### Recovery

The recovery of rat TPO spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	95	87-102
EDTA plasma (n=4)	94	89-100

### Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



ng/ml	OD1	OD2	Average	?
40	0.160	0.154	0.157	?
20	0.269	0.265	0.267	?
10	0.499	0.512	0.506	?
5	1.043	1.007	1.025	?
2.5	2.051	2.037	2.044	?