

Recombinant Human Thrombopoietin, His-tagged

Cat. No. THPO-98H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Thrombopoietin encoding the human TPO (NP_000451.1) precursor (Met 1- Gly 353) with a N-terminal his tag was expressed in HEK293.
Species	Human
Source	HEK293
Protein Length	1-353 a.a.
Description	Thrombopoietin (TPO) is a hematopoietic growth factor that is involved in the regulation of platelet production. This cytokine is composed of an amino-terminal erythropoietin-like domain which is the functional domain and a highly glycosylated carboxyl domain that appears to stabilize circulating thrombopoietin. TPO stimulates both proliferation of progenitor megakaryocytes and their maturation to platelet-producing megakaryocytes, and also accelerates the recovery of platelets. It has been identified that surface c-MPL, the receptor for TPO, binds to the ligand and mediates the action. TPO has multilineage effects in hematopoiesis, not only stimulating megakaryocytopoiesis but also acting in synergy with other cytokines to enhance proliferation and survival of committed erythroid progenitors and primitive hematopoietic stem cells. Accordingly, TPO may contribute, at least in part, to leukemogenesis, and represent powerful tools for related analyses.
Molecular Mass	The recombinant human TPO consists of 348 amino acids with the predicted molecular mass of 37.6 kDa. As a result of glycosylation, rhTPO migrates as an

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approximately 80 kDa band in SDS-PAGE under reducing conditions.

Predicted N Terminal	Ser 22.
Endotoxin	< 1.0 EU per 1g cytokine as determined by the LAL method.
Formulation	Supplied as a 0.2m filtered solution of PBS, pH7.4.
Reconstitution	Follow the instructions on the vial. Centrifuge the vial at 4°C before opening to recover the entire contents.
Purity	> 95%, as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt -70°C.
Storage	Store it under sterile conditions at -70°C immediately after receipt. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	THPO thrombopoietin [Homo sapiens]
Synonyms	THPO; thrombopoietin; ML; TPO; MGDF; MKCSF; MPLLG; MGC163194; MPL ligand; c-mpl ligand; thrombopoietin nirs variant 1; megakaryocyte stimulating factor; megakaryocyte colony-stimulating factor; megakaryocyte growth and development factor; myeloproliferative leukemia virus oncogene ligand
Gene ID	7066
mRNA Refseq	NM_000460

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Protein Refseq	NP_000451
MIM	600044
UniProt ID	P40225
Chromosome Location	q27
Pathway	Hematopoietic cell lineage
Function	cytokine activity; growth factor activity; hormone activity
PDB rendering based on 1v7m.	