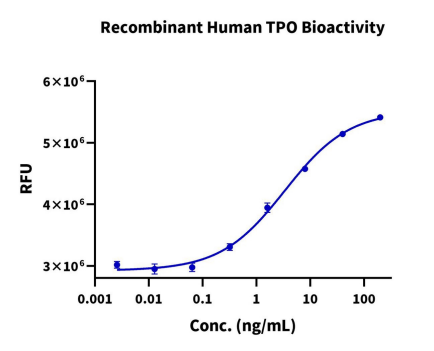
Bioactive

TPO (Human) Recombinant Protein

Catalog # P10658 Size 100 ug

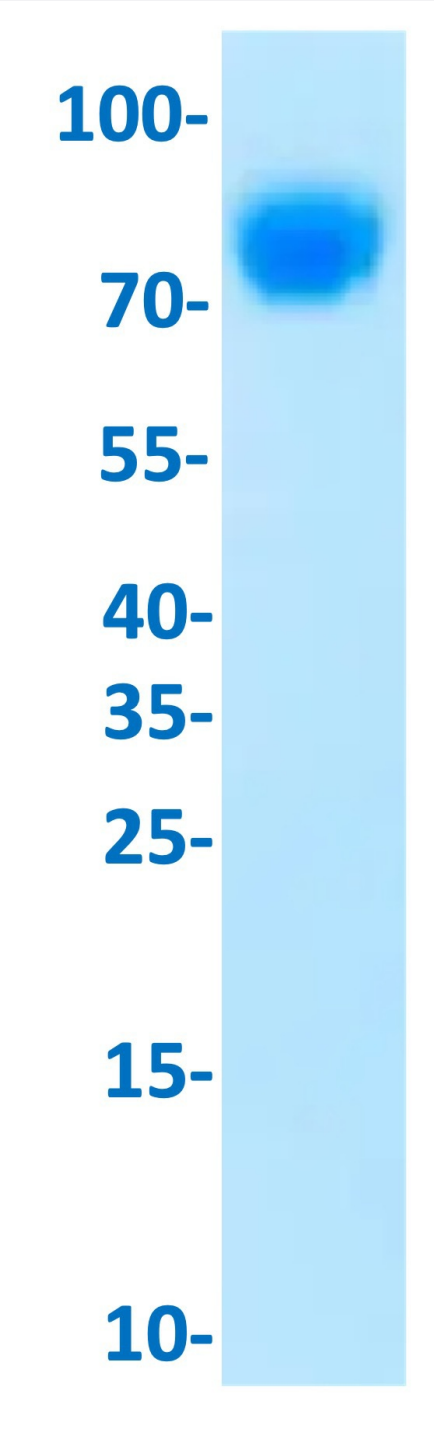
Applications



Functional Study

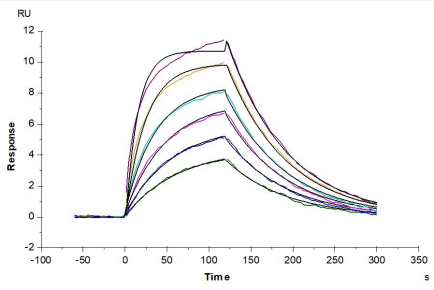
Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The ED_{50}-for this effect is typically 0.5-5 ng/ml (QC Test).

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SDS-PAGE

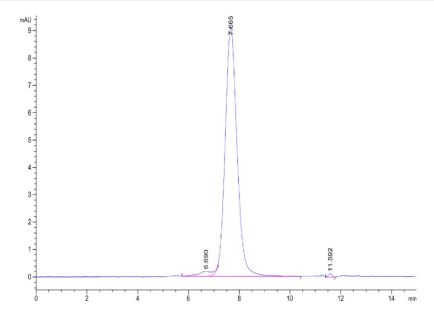
Human TPO on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.



Surface Plasmon Resonance

Human c-MPL, His Tag immobilized on CM5 Chip can bind Human Thrombopoietin, His Tag with an affinity constant of 25.54 nM as determined in SPR assay (Biacore T200).

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HPLC

The purity of Human TPO is greater than 95% as determined by SEC-HPLC.

Specification

Product Description	Human TPO (NP_000451.1, Ser22-Gly353) partial recombinant protein with His tag at the N-Terminus expressed in Mammalian cell (HEK293).
Sequence	Ser22-Gly353
Host	Human
Theoretical MW (kDa)	36.56
Reactivity	Human
Form	Liquid
Preparation Method	Mammalian cell (HEK293) expression system
Purity	> 95% by Tris-Bis PAGE > 95% by HPLC
Endotoxin Level	< 1 EU per 1 ug as determined by the LAL method.
Activity	The affinity constant of 25.54 nM as determined in SPR assay.
Recommend Usage	Biological Activity Tris-Bis PAGE SEC-HPLC The optimal working dilution should be determined by the end user.
Storage Buffer	Supplied as 0.22 um filtered solution in PBS (pH 7.4).
Storage Instruction	Store at -80°C for 6 months. Aliquot to avoid repeated freezing and thawing.

Applications

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- Functional Study

  Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The ED_{50}-for this effect is typically 0.5-5 ng/ml (QC Test).

- SDS-PAGE

  Human TPO on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

- Surface Plasmon Resonance

  Human c-MPL, His Tag immobilized on CM5 Chip can bind Human Thrombopoietin, His Tag with an affinity constant of 25.54 nM as determined in SPR assay (Biacore T200).

Gene Info — THPO

Entrez GeneID	7066
Protein Accession#	NP_000451.1
Gene Name	THPO
Gene Alias	MGC163194, MGDF, MKCSF, ML, MPLLG, TPO
Gene Description	thrombopoietin
Omim ID	187950 600044
Gene Ontology	Hyperlink
Gene Summary	Megakaryocytopoiesis is the cellular development process that leads to platelet production. The protein encoded by this gene is a humoral growth factor that is necessary for megakaryocyte proliferation and maturation, as well as for thrombopoiesis. This protein is the ligand for MLP/C_MPL, the product of myeloproliferative leukemia virus oncogene. [provided by RefSeq
Other Designations	MPL ligand|c-mpl ligand|megakaryocyte colony-stimulating factor|megakaryocyte growth and development factor|megakaryocyte stimulating factor|myeloproliferative leukemia virus oncogene ligand|thrombopoietin nirs variant 1

Pathway

- Hematopoietic cell lineage

Disease

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- Atherosclerosis
- Cardiovascular Diseases
- Chorioamnionitis
- Diabetes Mellitus
- Edema
- Fetal Membranes
- Genetic Predisposition to Disease
- Kidney Failure
- Myocardial Infarction
- Obstetric Labor
- Pre-Eclampsia
- Premature Birth
- Thrombocythemia
- Werner syndrome

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