

Mouse TPO (Thrombopoietin) (Carrier-Free) Recombinant Protein, eBioscience™

Product Details	
Size	100 µg
Species	Mouse
Expression system	E. coli
Amino acid sequence	Mouse TPO, amino acids Glu22-Thr195 (Accession # NP_001166976.1)
Molecular weight	18.7 kDa
Class	Recombinant
Type	Protein
Purity	>98% by SDS-PAGE and HPLC
Endotoxin concentration	<0.1 ng/µg
Activity	ED50 1.0 ng/mL; determined by the dose-dependent proliferation of human MO7e cells. This corresponds to a specific activity of at least 1.0x10 ⁶ Units/mg.
Conjugate	Unconjugated
Form	Lyophilized
Storage conditions	-20°C

Applications	Tested Dilution	Publications
Functional Assay (FN)	Assay-Dependent	-
Control (Ctrl)	Assay-Dependent	-
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

Description: Thrombopoietin (TPO, THPO, MPL ligand, megakaryocyte colony-stimulating factor) is responsible for the generation of platelets through its action on hematopoietic cells committed to the megakaryocyte lineage. Binding of thrombopoietin to its receptor, MPL (CD110), initiates a signaling cascade via JAK/STAT, MAPK, and PI3K/AKT signaling pathways that leads to the proliferation and differentiation of megakaryocytes and, ultimately, to the production of platelets (thrombopoiesis). Thrombopoietin is constitutively produced by the liver and has a predicted molecular weight of 38 kDa.

Applications Reported: Recombinant human TPO is biologically active and can promote proliferation of human MO7e cells in culture.

Applications Tested: The ED50 of this protein, as measured by proliferation of human MO7e cells, is less than or equal to 1.0 ng/mL, which corresponds to a specific activity of at least 1.0 x 10⁶ Units/mg.

Source: E. coli (amino acids Glu22-Thr195; accession # NP_001166976.1).

Bioactivity: The ED50 of this protein, as measured by proliferation of human MO7e cells, is less than or equal to 1.0 ng/mL, which corresponds to a specific activity of at least 1.0 x 10⁶ Units/mg.

Endotoxin: Less than 0.1 ng/ug cytokine as determined by the LAL assay. Purity: >98% as determined by SDS-PAGE and HPLC.

Molecular Weight: 18.7 kDa.

Storage and handling: For best recovery, quick spin vial prior to opening. Use in sterile environment. Reconstitute in water too

a concentration of less than or equal to 0.5 mg/mL. This protein dissolves slowly. Do not vortex. Store lyophilized protein at less than or equal to -20°C. Reconstituted protein solution can be stored with carrier-protein (e.g., 0.1% BSA) at less than or equal to -20°C.

1 Reference

Miscellaneous PubMed (1)

Nature communications	Year 2018
Hematopoietic stem cells can differentiate into restricted myeloid progenitors before cell division in mice.	
Authors: Grinenko T,Eugster A,Thielecke L,Ramasz B,Krüger A,Dietz S,Glauche I,Gerbaulet A,von Bonin M,Basak O,Clevers H,Chavakis T,Wielockx B	

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