

Thrombopoietin (TPO) Active Protein | TPO active protein

Active Thrombopoietin (TPO)

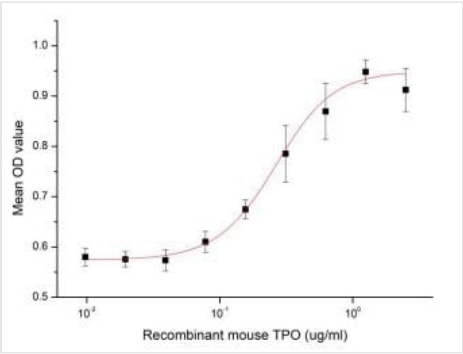
CATALOG # AAA161704	HOST 293F cell	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

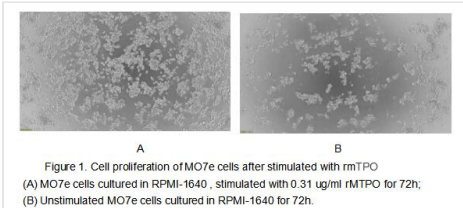
Thrombopoietin (TPO); Active Thrombopoietin (TPO); Thrombopoietin; TPO active protein (eukaryotic; 293F cell); Mouse; THPO; MGDF; MKCSF; ML; MPLLG; Myeloproliferative Leukemia Virus Oncogene Ligand; Megakaryocyte Growth And Development Factor; Megakaryocyte Stimulating Factor4; TPO active protein

PRODUCT SPECIFICATIONS

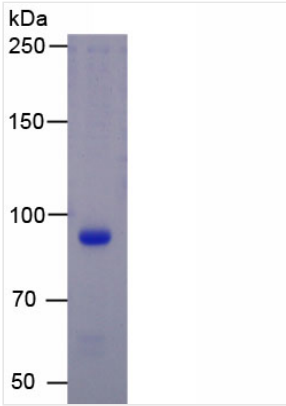
Host	293F cell
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Ser22~Thr3 56
Applicable Applications for TPO active protein	Activity Assay, Cell Culture
Species	Mouse
Expression System	Eukaryotic expression
Tag	N-terminal His Tag and C-terminal Fc Region of Human IgG1
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	9.6
Research Area	Hematology, Hormone metabolism
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months



Bioactivity
Figure 2. The dose-effect curve of rmTPO on MO7e cells



Bioactivity
Thrombopoietin (TPO), is a key regulator of megakaryocytopoiesis and thrombopoiesis. It is principally produced in the liver and is bound and internalized by the receptor Tpo R/c-mpl. Defects in the Tpo-Tpo R signaling pathway are associated with a variety of platelet disorders. The activity of recombinant mouse TPO was measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. MO7e cells were seeded into triplicate wells of 96-well plates at a density of 30,000 cells/well in RPMI-1640 with the addition of various concentrations of rmTPO. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 ul of CCK-8 solution was added to each well of the plate, then the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37 degree C. Cell proliferation of MO7e cells after incubation with rmTPO for 72h observed by inverted microscope was shown in Figure 1. The dose-effect curve of rmTPO was shown in Figure 2. It was obvious that rmTPO significantly promoted cell proliferation of MO7e cells. The EC50 for this effect is typically 0.26 ug/ml.



SDS-PAGE
Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for TPO active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	291045237
NCBI GeneID	21832
NCBI Accession #	NP_001166976.1
NCBI GenBank Nucleotide #	NM_001173505.1
UniProt Accession #	P40226
Molecular Weight	160,000
NCBI Official Full Name	thrombopoietin
NCBI Official Synonym Full Names	thrombopoietin
NCBI Official Symbol	Thpo

NCBI Official Synonym Symbols	MI; Tpo; Mgdf; Tpo1; Tpo2; Tpo3; Tpo4; Mpllg
NCBI Protein Information	thrombopoietin; C-mpl ligand; megakaryocyte colony-stimulating factor; megakaryocyte growth and development factor; myeloproliferative leukemia virus oncogene ligand
UniProt Protein Name	Thrombopoietin
UniProt Gene Name	Thpo
UniProt Synonym Gene Names	ML; MGDF
UniProt Entry Name	TPO_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/293f-active-protein/thrombopoietin-tpo/161704>