

# Recombinant mouse Thrombopoietin protein

Catalog Number: ATGP3930

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

22-356aa

### UniProt No.

P40226

### NCBI Accession No.

NP\_033405

### Alternative Names

Thpo, C-mpl ligand,ML, Megakaryocyte colony-stimulating factor, Megakaryocyte growth and development factor, MGDF, Myeloproliferative leukemia virus oncogene ligand, Mgdf, MI, Mpllg, Tpo, thrombopoietin isoform 1

## PRODUCT SPECIFICATION

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### Molecular Weight

36.4 kDa (341aa)

### Concentration

0.5mg/ml (determined by absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 90% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The ED50 range  $\leq 4$ ng/ml.

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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## BACKGROUND

### Description

Thrombopoietin (THPO), also known as megakaryocyte growth and development factor (MGDF), is a glycoprotein hormone produced by the liver and kidney which regulates the production of platelets. It stimulates the production and differentiation of megakaryocytes, the bone marrow cells that bud off large numbers of platelets. Megakaryocytopoiesis is the cellular development process that leads to platelet production. It is a humoral growth factor 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. Recombinant mouse Thrombopoietin, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

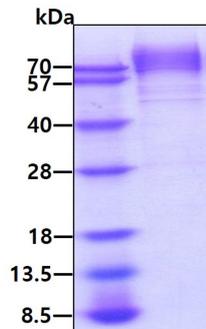
SPVAPACDPR LLNKLRRDSH LLHSRLSQCP DVDPLSIPVL LPAVDFSLGE WKTQTEQSKA QDILGAVSLL LEGVMAARGQ  
LEPSCLSLL GQLSGQVRL LGALQGLLGT QLPLQGRRTA HKDPNALFLS LQQLLRGKVR FLLLVEGPTL CVRRTLPTTA  
VPSSTSLLT LNKFPNRTSG LLETNFSVTA RTAGPGLLSR LQGFRVKITP GQLNQTSRSP VQISGYLNRT HGPVNGTHGL  
FAGTSLQTL ASDISPGAFN KGSLAFNLQG GLPPSPSLAP DGHTPFPPSP ALPTTHGSP QLHPLFPDPS TTMPNSTAPH  
PVTMYPHPRN LSQET<HHHHH H>

### General References

Jenkins JM., et al. (2007) Blood. 109:4739-4741.  
Hitchcock IS., et al. (2014) Br J Haemato. 165:259-268.

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain

### Biological Activity

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Mouse Thrombopoietin stimulates cell proliferation of the MO7e human megakaryocytic leukemic cells. The ED50 range  $\leq 4$  ng/ml.

