

# **Recombinant Mouse Thrombopoietin/THPO Protein**

Catalog No.: RP01665 Recombinant

## **Sequence Information**

**Species Gene ID Swiss Prot** Mouse 21832 P40226-1

**Tags** C-6His

Synonyms

MI; Tpo; Mgdf; Mpllg; THPO; TPO

## **Product Information**

**Source** Purification HEK293 cells ≥ 95 % as

ells ≥ 95 % as determined by SDS-

PAGE.

Calculated MW Observed MW

36.43 kDa 60-80 kDa

#### **Endotoxin**

< 0.1 EU/ $\mu$ g of the protein by LAL method.

#### **Formulation**

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

#### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

6	400-999-6126
$\bowtie$	cn.market@abclonal.com.cn
•	www.abclonal.com.cn

## **Background**

Thrombopoietin (TPO or THPO), also known as myeloproliferative leukemia virus ligand (c-Mpl), is a hematopoietic growth factor belonging to the EPO/TPO family. The thrombopoietin protein is produced mainly by the liver and the kidney that regulates the production of platelets by the bone marrow. Thrombopoietin protein stimulates both proliferation of progenitor megakaryocytes and their maturation to platelet-producing megakaryocytes, and also accelerates the recovery of platelets. Thrombopoietin protein is involved in cardiovascular disease as it regulates megakaryocyte development and enhances platelet adhesion/aggregation. It has been identified that surface c-MPL, the receptor for thrombopoietin protein, binds to the ligand and mediates the action.

## **Basic Information**

#### Description

Recombinant Mouse Thrombopoietin/THPO Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ser22-Thr356) of mouse Thrombopoietin/THPO (Accession  $\#NP_033405.1$ .) fused with and a 6×His tag at the C-terminus.

## **Bio-Activity**

Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. Avanzi, G. et al. (1988) Br. J. Haematol. 69:359. The  $ED_{50}$  for this effect is 0.45-1.80 ng/mL.

## **Shipping**

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

#### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20  $^{\circ}$ C for 3 months, at 2-8  $^{\circ}$ C for up to 1 week.

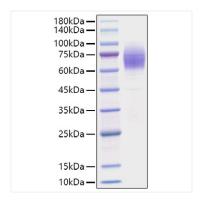
Avoid repeated freeze/thaw cycles.

#### **Operational Notes**

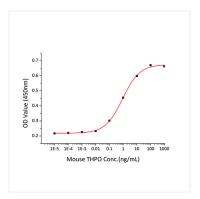
For your safety and health, please wear a lab coat and disposable gloves for handling.

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## **Validation Data**



Recombinant Mouse Thrombopoietin/THPO Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Mouse THPO stimulates cell proliferation of the MO7e human megakaryocytic leukemic cells. The ED $_{50}$  for this effect is 0.45-1.80 ng/mL.