

Recombinant Mouse Thrombopoietin/THPO Protein

Catalog No.: RP01665 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Mouse	21832	P40226-1

Tags

C-6His

Synonyms

Ml; Tpo; Mgdg; Mpllg; THPO; TPO

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
36.43 kDa	60-80 kDa

Endotoxin

<0.1EU/μg

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 stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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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.

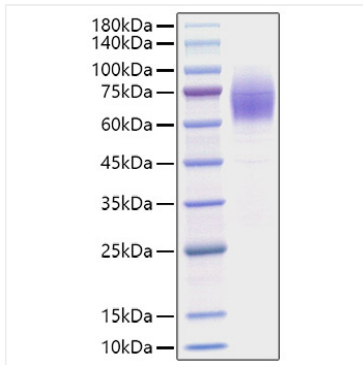
Bio-Activity

Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. Avanzi, G. et al. (1988) Br. J. Haematol. 69:359. The ED₅₀ for this effect is 0.45-1.80 ng/mL.

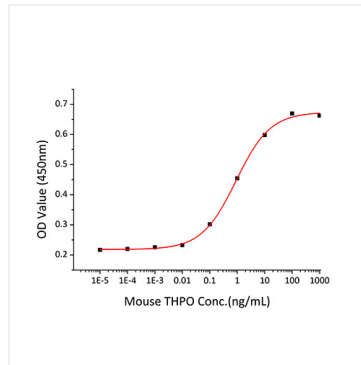
Storage

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°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Mouse Thrombopoietin/THPO Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 60-80 kDa.



Recombinant Mouse THPO stimulates cell proliferation of the MO7e human megakaryocytic leukemic cells. The ED₅₀ for this effect is 0.45-1.80 ng/mL.