

Human Thrombopoietin / THPO / TPO Protein (His Tag)

Catalog Number: 10381-H07H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

MGDF; MKCSF; ML; MPLLG; THCYT1; TPO

Protein Construction:

A DNA sequence encoding the mature form of human THPO (NP_000451.1) (Ser 22-Gly 353) was fused with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The ED₅₀ for this effect is typically 10-60 ng/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Predicted N terminal: Ser 22

Molecular Mass:

The recombinant human THPO consists of 348 amino acids with the predicted molecular mass of 37.6 kDa. As a result of glycosylation, rhTHPO migrates as an approximately 78.2 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

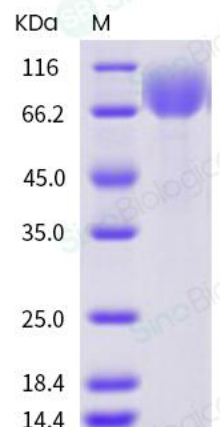
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

Ryu T, et al. (2003) Thrombopoietin-producing hepatocellular carcinoma. Intern Med. 42(8): 730-4.
Higashihara M, et al. (2003) Thrombopoietin-producing tumor. Intern Med. 42(8): 632-3?