Cynomolgus Thrombopoietin / THPO / TPO Protein (His Tag)

Catalog Number: 90004-C08H

General Information

Gene Name Synonym:

THPO

Protein Construction:

A DNA sequence encoding the Cynomolgus (Macaca fascicularis) THPO (XP_005546625.1) (Met 1-Gly 353) precursor was expressed, with a C-terminal polyhistidine tag.

Source: Cynomolgus

Expression Host: HEK293 Cells

QC Testing

Purity: > 86 % as determined by SDS-PAGE

Bio Activity:

Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The ED_{50} for this effect is typically 4-20 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 cynomolgus THPO consists of 343 amino acids and has a calculated molecular mass of 36.8 kDa. The apparent molecular mass of the recombinant protein is approximately 70-80 kDa in SDS-PAGE under reducing conditions due to glycosylation.

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℃ to -80℃.

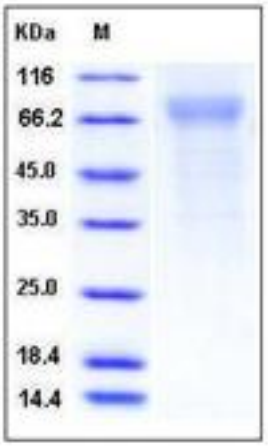
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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?