

Active Recombinant Human THPO Protein (Ser22-Leu195), GMP Grade, Animal-Free

Cat. No. THPO-12HG Lot. No. (See product label)

SPECIFICATION

Product Overview	GMP recombinant human Thrombopoietin protein (Ser22-Leu195) without tag was expressed in E. coli, produced in an Animal-Free laboratory and manufactured and tested under cGMP guidelines.
Species	Human
Source	E.coli
ProteinLength	Ser22-Leu195
Description	Megakaryocytopoiesis is the cellular development process that leads to platelet production. The main functional protein encoded by this gene is a humoral growth factor that is 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. Mutations in this gene are the cause of thrombocythemia 1. Alternative promoter usage and differential splicing result in multiple transcript variants differing in the 5' UTR and/or coding region. Multiple AUG codons upstream of the main open reading frame (ORF) have been identified, and these upstream AUGs inhibit translation of the main ORF at different extent.
Bio-activity	Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The ED50 for this effect is 0.05-0.5 ng/mL. The specific activity of Recombinant Human Thrombopoietin is >1 x 10 ⁷ units/mg,

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which is calibrated against the human Thrombopoietin reference standard.

Molecular Mass

Predicted Molecular Mass: 18.7 kDa
SDS-PAGE: 19 kDa, reducing conditions

N-terminal Sequence Analysis

Ala-Ser22-Pro-Ala-Pro-Pro-Ala-(Cys)-Asp-Leu

Endotoxin

<0.10 EU/ µg of the protein by the LAL method.

Purity

>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
A minimum of 6 months when stored at ≤ -20 centigrade as supplied. Refer to lot specific COA for the Use by Date.
1 month, 2 to 8 centigrade under sterile conditions after reconstitution.
3 months, ≤ -20 centigrade under sterile conditions after reconstitution.

Storage Buffer

Lyophilized from a 0.2 µm filtered solution in Sodium Acetate.

Reconstitution

Reconstitute at 100-200 µg/mL in sterile, deionized water.

Shipping

The product is shipped with polar packs.

GENE INFORMATION

Gene Name

THPO thrombopoietin [Homo sapiens (human)]

Official Symbol

THPO

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Synonyms	THPO; thrombopoietin; ML; TPO; MGDF; MKCSF; MPLLG; THCYT1;
Gene ID	7066
mRNA Refseq	NM_000460
Protein Refseq	NP_000451
MIM	600044
UniProt ID	P40225

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