



Recombinant Human TPO
(Thrombopoietin)

Catalog Number: 100-05
Accession Number: P40225

Specifications and Uses:

Alternate Names: Megakaryocyte Colony Stimulating Factor, c-MPL ligand, MGDF

Description:

Thrombopoietin (TPO) is a growth factor that is produced by liver and kidney tissue. TPO acts through the TPO receptor to promote megakaryocyte maturation and differentiation, which leads to the production of platelets. Recombinant human TPO is a non-glycosylated protein, containing the 174 amino acids of the receptor binding domain, with a molecular weight of 18.6 kDa.

Source: *E.coli*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation and Stability:

Recombinant human TPO is lyophilized from 10 mM Na₂PO₄, pH 8.0.

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with **5 mM Na₂PO₄ (pH 7.5)**, at a concentration of 0.1 mg/mL. This solution can then be further diluted into other aqueous solutions.

Protein Content and Purity (typically ≥ 98%) determined by:

Reducing and Non-reducing SDS-PAGE

Endotoxin Level:

Measured by kinetic LAL analysis and is typically ≤ 1 EU/μg protein.

Biological Activity:

The activity is determined by the dose-dependent stimulation of MO7e cells and is typically less than 1 ng/mL.

AA Sequence:

SPAPPACDLR VLSKLLRDSH VLHSRLSQCP EVHPLTPVL LPAVDFSLGE WKTQMEETKA QDILGAVTLL
LEGVMAARGQ LGPTCLSSLL QLSGQVRL LGALQSLLGT QLPPQGRRTA HKDPNAIFLS FQHLLRGKVR
FLMLVGGSTL CVRRAPPTTA VPSRTSLVLT LNEL

THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!

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