

BACKGROUND

Thrombopoietin (TPO) is a growth factor that is produced by the liver and kidney. 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 and having a molecular mass of 18.6 kDa.

Alternative Names:

Megakaryocyte Colony Stimulating Factor, c-MPL ligand, MGDF

Amino Acid Sequence:

SPAPPACDLR VLSKLLRDSH VLHSRLSQCP EVHPLPTPVL
LPAVDFSLGE WKTQMEETKA QDILGAVTLL LEGVMAARGQ
LGPTCLSSLL GQLSGQVRLI LGALQSLLGT QLPPQGRITTA
HKDPNAIFLS FQHLLRGKVR FLMLVGGSTL CVRRAPPTTA
VPSRTSLVLT LNEL

TECHNICAL INFORMATION

Source: *E.coli*

Physical Appearance:

Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:

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

Stability:

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 sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:

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

Products are for research use only. They are not intended for human, animal, or diagnostic applications.

