

**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 mouse TPO is a non-glycosylated protein, containing 174 amino acids (which comprise the receptor binding domain), having a molecular mass of 18.7 kDa.

**Alternative Names:**

Megakaryocyte Colony Stimulating Factor, c-MPL ligand, MGDF

**Amino Acid Sequence:**

SPVAPACDPR LLNKLRRDHS LLHSRLSQCP DVDPLSIPVL  
LPAVDFSLGE WKTQTEQSKA QDILGAVSLL LEGVMAARGQ  
LEPSCLSLL GQLSGQVRLR LGALQGLLGT QLPLQGRTTA  
HKDPNALFLS LQQLLRGKVR FLLLVEGPTL CVRRTLPTTA  
VPSSTSQLLT LNKF

**TECHNICAL INFORMATION**

**Source:** *E.coli*

**Physical Appearance:**

Sterile Filtered white lyophilized (freeze-dried) powder.

**Formulation:**

Recombinant mouse TPO is lyophilized with no additives.

**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 less than 1 ng/ml.

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

