

BACKGROUND:

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.

Cat. No.:
RP1005AF

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

AA Sequence:

MSPAPPACDL	RVLSKLLRDS	HVLHSRLSQC
PEVHPLPTPV	LLPAVDFSLG	EWKTQMEETK
AQDILGAVTL	LLEGVMAARG	QLGPTCLSSL
LGQLSGQVRL	LLGALQSLLG	TQLPPQGRTT
AHKDPNAIFL	SFQHLLRGKV	RFLMLVGGST
LCVRRAPPTT	AVPSRTSLVL	TLNEL

TECHNICAL INFO

Source:
E.coli

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

Formulation:
10 mM sodium phosphate, pH 7.5

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 0.1 mg/mL, which can be further diluted into other aqueous solutions. Upon reconstitution, a small amount of visible precipitate can be expected. A 10% overfill has been added to the total material vial to compensate for this loss.

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 measured by dose-dependent MO7e cell Proliferation, with Bioactivity Acceptance Criteria ED50 at 5 ng/mL.

Animal Component-Free
This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

