# Mouse Thrombopoietin R Protein, His Tag (MALS & SPR verified)

Catalog # THR-M52H3

## Synonym

MPL,C-MPL,CD110,MPLV,THCYT2,TPOR

## Source

Mouse Thrombopoietin R Protein, His Tag(THR-M52H3) is expressed from human 293 cells (HEK293). It contains AA Gln 26 - Trp 482 (Accession # Q08351-1).
Predicted N-terminus: Gln 26

## Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 53.1 kDa. The protein migrates as 55-65 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

## Purity

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

## Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

***For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.***

## Storage

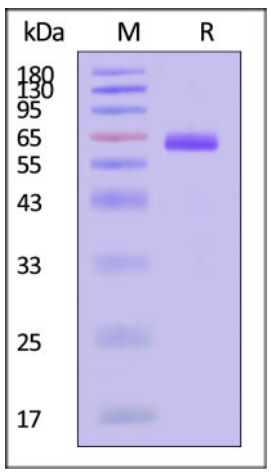
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

***Please avoid repeated freeze-thaw cycles.***

This product is stable after storage at:

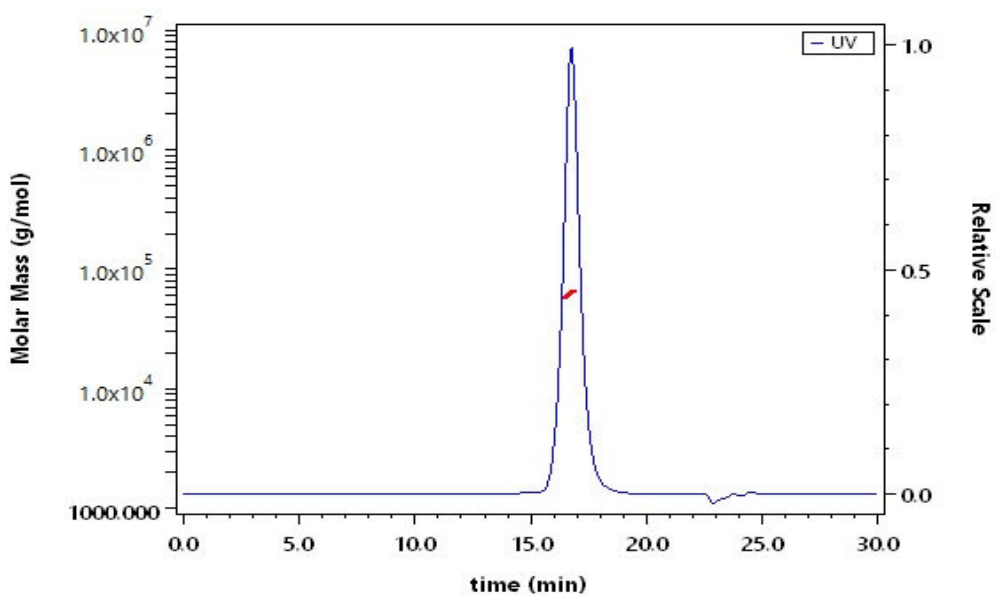
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



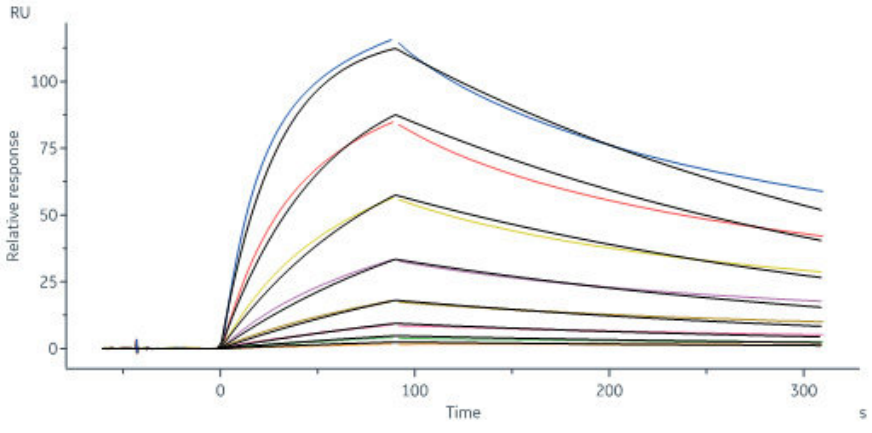

Mouse Thrombopoietin R Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

## SEC-MALS




The purity of Mouse Thrombopoietin R Protein, His Tag (Cat. No. THR-M52H3) is more than 95% and the molecular weight of this protein is around 50-70 kDa verified by SEC-MALS.
Report

## Bioactivity-SPR




Mouse Thrombopoietin R Protein, His Tag (Cat. No. THR-M52H3) capture on NTA-Series S sensor chip can bind Human Thrombopoietin Protein, Tag Free with an affinity constant of 5.67 nM as determined in a SPR assay (Biacore 8K) (QC tested).

## Background

Thrombopoietin R, also known as TPO-R, is expressed predominantly on the surface of MKs, platelets, hemangioblasts, and hematopoietic stem cells (HSCs). Binding of TPO to the megakaryocyte TPO-R leads to different effects: prevention of megakaryocyte apoptosis; increased megakaryocyte number, size, and ploidy; increasing rate of megakaryocyte maturation; and internalization of the TPO/TPO-R complex. Thrombopoietin R involved in multiple signal transduction pathways, such as JAK, STAT, and MAP kinase.