Human Thrombopoietin R / TPO R Protein, His Tag (MALS & SPR verified)

Catalog # THR-H52H7

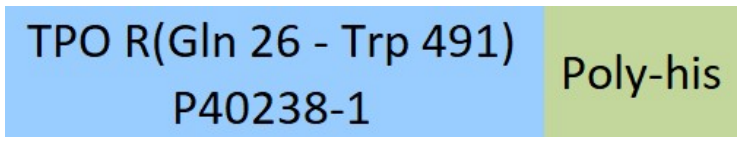
Synonym

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

Source

Human Thrombopoietin R, His Tag(THR-H52H7) is expressed from human 293 cells (HEK293). It contains AA Gln 26 - Trp 491 (Accession # P40238-1).
Predicted N-terminus: Gln 26

Molecular Characterization



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

The protein has a calculated MW of 54.4 kDa. The protein migrates as 60-66 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.

Purity

>95% as determined by SDS-PAGE.

>90% 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

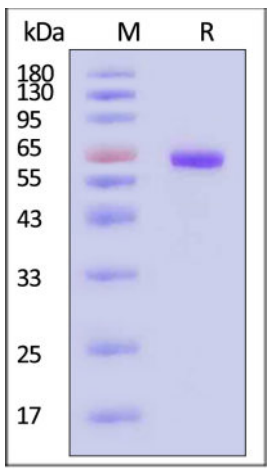
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

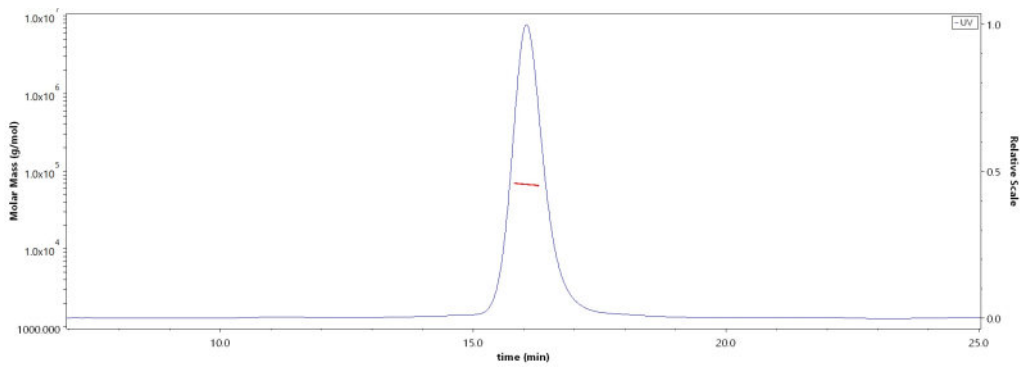
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



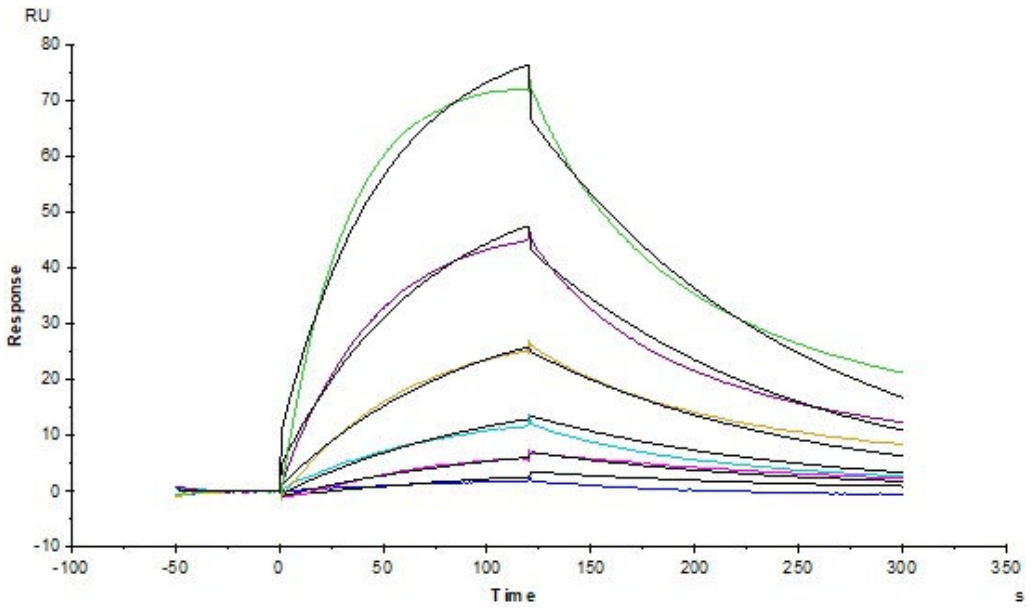
Human Thrombopoietin R, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



The purity of Human Thrombopoietin R, His Tag (Cat. No. THR-H52H7) is more than 90% and the molecular weight of this protein is around 60-74 kDa verified by SEC-MALS.
Report

Bioactivity-SPR



Human Thrombopoietin R, His Tag (Cat. No. THR-H52H7) captured on CM5 Chip via anti-His antibody can bind Human Thrombopoietin, premium grade (Cat. No. THN-H5214) with an affinity constant of 2.32 nM as determined in SPR assay (Biacore T200) (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.

Clinical and Translational Updates