

Bioactive

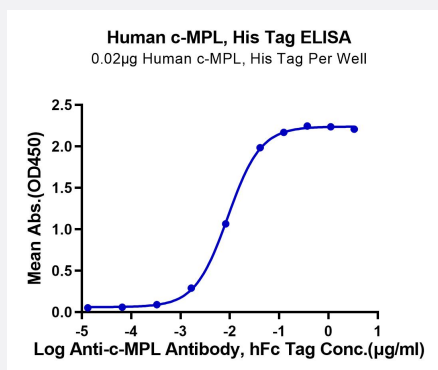
HuPro®

MPL (Human) Recombinant Protein

Catalog # P9815

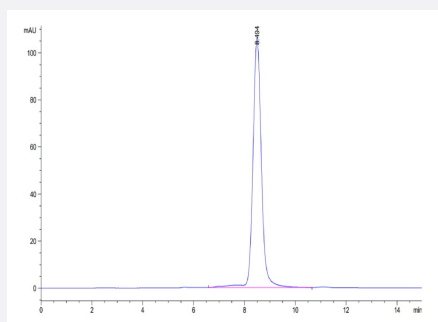
Size 100 ug

Applications



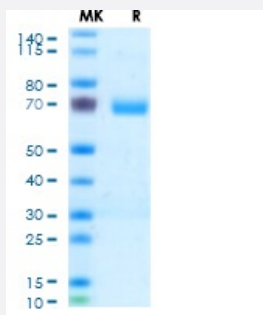
Enzyme-linked Immunoabsorbent Assay

Immobilized Human c-MPL, His Tag at 0.2 ug/mL (100 uL/Well) on the plate. Dose response curve for Anti-c-MPL Antibody, hFc Tag with the EC50 of 9.1 ng/mL determined by ELISA.



SEC-HPLC

The purity of Human c-MPL is greater than 95% as determined by SEC-HPLC.



Tris-Bis PAGE

Human c-MPL on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

Specification

Product Description	Human MPL (P40238-1, Gln26-Trp491) partial recombinant protein with His tag at C-Terminus expressed in HEK293 cells.
Sequence	Gln26-Trp491
Host	Human
Theoretical MW (kDa)	53.6
Form	Lyophilized
Preparation Method	Mammalian cell (HEK293) expression system
Purity	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin Level	< 1 EU per 1 ug of protein (determined by LAL method)
Activity	The EC ₅₀ was 9.1 ng/mL, measured by ELISA at 0.2 ug/mL.
Quality Control Testing	SEC-HPLC and Tris-Bis PAGE SEC-HPLC The purity of Human c-MPL is greater than 95% as determined by SEC-HPLC. Tris-Bis PAGE Human c-MPL on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.
Recommend Usage	Biological Activity ELISA SDS-PAGE The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from sterile distilled Water is > 100 ug/mL
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of bioactivity analysis

Applications

- Enzyme-linked Immunoabsorbent Assay

Immobilized Human c-MPL, His Tag at 0.2 ug/mL (100 uL/Well) on the plate. Dose response curve for Anti-c-MPL Antibody, hFc Tag with the EC₅₀ of 9.1 ng/mL determined by ELISA.

- Functional Study

- SDS-PAGE

Gene Info — MPL

Entrez GeneID [4352](#)

Protein Accession# [P40238-1](#)

Gene Name MPL

Gene Alias C-MPL, CD110, MPLV, TPOR

Gene Description myeloproliferative leukemia virus oncogene

Omim ID [159530](#) [187950](#) [604498](#)

Gene Ontology [Hyperlink](#)

Gene Summary

In 1990 an oncogene, v-mpl, was identified from the murine myeloproliferative leukemia virus that was capable of immortalizing bone marrow hematopoietic cells from different lineages. In 1992 the human homologue, named, c-mpl, was cloned. Sequence data revealed that c-mpl encoded a protein that was homologous with members of the hematopoietic receptor superfamily. Presence of anti-sense oligodeoxynucleotides of c-mpl inhibited megakaryocyte colony formation. The ligand for c-mpl, thrombopoietin, was cloned in 1994. Thrombopoietin was shown to be the major regulator of megakaryocytopoiesis and platelet formation. The protein encoded by the c-mpl gene, CD110, is a 635 amino acid transmembrane domain, with two extracellular cytokine receptor domains and two intracellular cytokine receptor box motifs. TPO-R deficient mice were severely thrombocytopenic, emphasizing the important role of CD110 and thrombopoietin in megakaryocyte and platelet formation. Upon binding of thrombopoietin CD110 is dimerized and the JAK family of non-receptor tyrosine kinases, as well as the STAT family, the MAPK family, the adaptor protein Shc and the receptors themselves become tyrosine phosphorylated. [provided by RefSeq]

Other Designations OTTHUMP00000008582|thrombopoietin receptor

Pathway

- [Cytokine-cytokine receptor interaction](#)
- [Jak-STAT signaling pathway](#)

Disease

- [Blast Crisis](#)
- [Bone Marrow Diseases](#)
- [Chronic Disease](#)
- [Disease Progression](#)

- [Genetic Predisposition to Disease](#)
- [Leukemia](#)
- [Myelofibrosis](#)
- [Myeloproliferative Disorders](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Polycythemia Vera](#)
- [Primary Myelofibrosis](#)
- [Thrombocythemia](#)
- [Thrombocytosis](#)