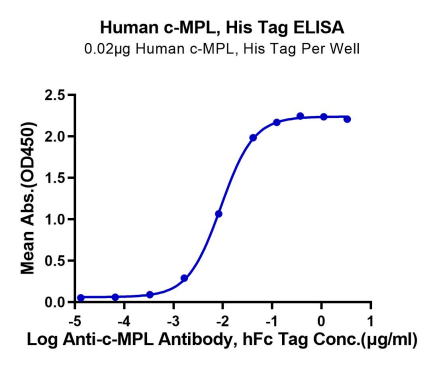
Bioactive HuPro®

MPL (Human) Recombinant Protein

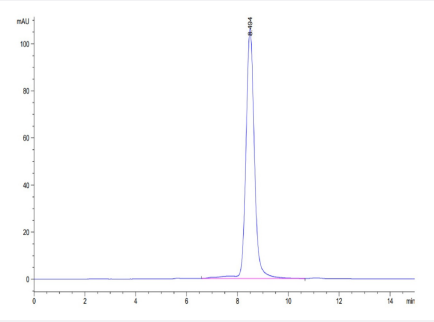
Catalog # P9815 Size 100 ug

Applications



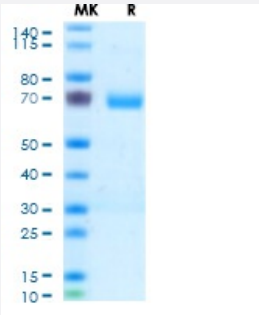
Enzyme-linked Immunoabsorbent Assay

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

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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	Liquid
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, messured 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	In PBS (pH 7.4)
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

- Functional Study
- 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.

- SDS-PAGE

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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 th e human homologue, named, c-mpl, was cloned. Sequence data revealed that c-mpl encoded a p rotein that was homologous with members of the hematopoietic receptor superfamily. Presence o f 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 regulat or of megakaryocytopoiesis and platelet formation. The protein encoded by the c-mpl gene, CD1 10, 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 thrombocy topenic, emphasizing the important role of CD110 and thrombopoietin in megakaryocyte and plat elet formation. Upon binding of thrombopoietin CD110 is dimerized and the JAK family of non-rec eptor 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

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- Genetic Predisposition to Disease
- Leukemia
- Myelofibrosis
- Myeloproliferative Disorders
- Pancreatic cancer
- Pancreatic Neoplasms
- Polycythemia Vera
- Primary Myelofibrosis
- Thrombocythemia
- Thrombocytosis

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