

Recombinant Human MPL Protein

Cat. No. MPL-5504H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human MPL full-length ORF (NP_005364.1) recombinant protein without tag.
Species	Human
Source	Wheat Germ
Description	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]
Form	Liquid

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Molecular Mass	71.2 kDa
AA Sequence	MPSWALFMVTSCLLAPQNLAQVSSQDVSLASDSEPLKCFSRTFEDLTCFWDEEE AAPSGTYQLLYAYPREKPRACPLSSQSMPHFGTRYVCQFPDQEEVRLFFPLHLWVK NVFLNQTRTQRVLFVDSVGLPAPPSIIKAMGGSQPGELQISWEEPAPFISDFLRYELR YGPRDPKNSTGPTVIQLIATETCCPALQRPHSASALDQSPCAQPTMPWQDGPQKTS PSREASALTAEGGSCLISGLQPGNSYWLQLRSEPDGISLGGSWGWSLPTVDLPG DAVALGLQCFTLDLKNVTCQWQQQDHASSQGFFYHSRARCCPRDRYPIWENCEEE EKTNPGLQTPQFSRCHFCSRNDSSIIHILVEVTTAPGTVHSYLGSPFWIHQAVRLPTPN LHWREISSGHLELEWQHPSSWAAQETCYQLRYTGEHGDWQVLEPPLGARGGTL ELRPRSRYRLQLRARLNGPTYQGPWSSWSDPTRVETATETAWISLVTALHLVLGLS AVLGLLLLRLWQFPAHYRRLRHALWPSLPDLHRVLGQYLRDTAALSPPKATVSDTCE EVEPSLLEILPKSSERTPLPLCSSQAQMDYRRLQPSCLTGTMPLSVCPMAESGCC TTHIANHSYLPLSYWQQP
Applications	Antibody Production Functional Study Compound Screening
Usage	Heating may cause protein aggregation. Please do not heat this product before electrophoresis.
Notes	Best use within three months from the date of receipt of this protein.
Storage	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.
Storage Buffer	25 mM Tris-HCl of pH8.0 containing 2% glycerol.

GENE INFORMATION

Gene Name	MPL myeloproliferative leukemia virus oncogene [Homo sapiens]
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Official Symbol	MPL
Synonyms	MPL; myeloproliferative leukemia virus oncogene; thrombopoietin receptor; CD110; TPOR; TPO-R; proto-oncogene c-Mpl; myeloproliferative leukemia protein; MPLV; C-MPL; THCYT2;
Gene ID	4352
mRNA Refseq	NM_005373
Protein Refseq	NP_005364
MIM	159530
UniProt ID	P40238

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