

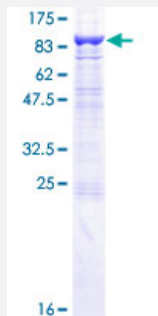
Full-Length

MPL (Human) Recombinant Protein (P01)

Catalog # H00004352-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human MPL full-length ORF (NP_005364.1, 1 a.a. - 635 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MPSWALFMVTSCLLAPQNLAQVSSQDVSLASDSEPLKCFSRTEFDLTFCWDEEEAAPSGTY
QLLYAYPREKPRACPLSSQSMPHFGTRYVCQFPDQEEVRLFFPLHLWVKNVFLNQTRTQRVLFV
DSVGLPAPPSIIKAMGGSQPGELQISWEEPAPEISDFLRyelRYGPRDPKNSTGPTVIQLIATETCC
PALQRPHSASALDQSPCAQPTMPWQDGPQKQTSREASALTAEGGSCLISGLQPGNSYWLQLR
SEPDISLGGSWGSWSLPVTVDLPGDAVALGLQCFTLDLKNVTCQWQQQDHASSQGFFYHSRA
RCCPRDRYPWENCEEEEEKTNPLQTPQFSRCHFKSRNDSIIHILVEVTTAPGTVHSYLGSPFWIH
QAVRLPTPNLHWREISSGHLELEWQHPSSWAAQETCYQLRYTGEGHQDWKVLPEPLGARGGTL
ELRPRSRYRLQLRARLNGPTYQGPWSSWSDPTRVETATETAWISLVTALHLVLGLSAVLGLLLLR
WQFPAHYRRLRHALWPSLPDLHRVLGQYLRDTAALSPPKATVSDTCEEVEPSLLEILPKSSERTP
LPLCSSQAQMDYRRLQPSCLGTMPLSVCPMAESGSCCTTHIANHSYPLSYWQQP

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

97.6

Interspecies Antigen Sequence

Mouse (81); Rat (79)

Preparation Method

[in vitro wheat germ expression system](#)

Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — MPL

Entrez GeneID	4352
GeneBank Accession#	NM_005373.1
Protein Accession#	NP_005364.1
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](#)