

Product Information

MemDX™ Membrane Protein Human MPL (MPL proto-oncogene, thrombopoietin receptor)

Expressed in CHO for Antibody Discovery, Partial (25-491aa)

Cat. No.: **MPX0301K**

This product is for research use only and is not intended for diagnostic use.

This product is a 53.4 kDa Human MPL membrane protein expressed in CHO. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

Product Specifications

Host Species

Human

Target Protein

MPL

Protein Length

Partial (25-491aa)

Protein Class

Receptor

Molecular Weight

53.4 kDa

TMD

1

Sequence

SQDVSLASDSEPLKCFSRTEFLTC
FWDEEEAAPSPTYQLLYAYPREKPRACPLSSQSMPLHFGTRYVCQFPDQEE
VRLFFPLHLWVKNVFLNQTRTQRVLFVDSVGLPAPPSIIKAMGGSQPGEL
QISWEEPAPPEISDFRLRYELRYGPRDPKNTGPTVIQLIATETCCPALQRP
HSASALDQSPCAQPTMPWQDGPQKQTSRSPREASALTAEGGSCSLISGLQPGN
SYWLQLRSEPDGSLGGSWGWSLPTVTDLPDGAVALGLQCFTLDLKNVT
CQWQQQDHASSQGFFYHSRARCPRDRYPWENECETNPGLQTPQFS
RCHFCSRNDIIHILVEVTTAPGTVHSYLGSPFWIHQAVRLPTPNLHWRE
ISSGHLELEWQHPSSWAAQETCYQLRYTGEGHQDWKVLPLGARGGTLE
LRPRSRYRLQLRLRLNGPTYQGPWSSWSDPTRVETATETAW

Product Description

Expression Systems

CHO

Tag

6xHis tag at the C-terminus

Protein Format

Soluble

Form

LYOPH

Reconstitution

Reconstitute at 250 µg/mL in sterile PBS.

Endotoxin

<0.10 EU per 1 µg of the protein by the LAL method.

Purity

>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Buffer

Lyophilized from a 0.2 µm filtered solution in PBS.

Storage

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -70°C or lower. Avoid freeze/thaw cycles.

Target**Target Protein**

MPL

Full Name

MPL proto-oncogene, thrombopoietin receptor

Introduction

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.

Alternative Names

MPL; MPLV; TPOR; C-MPL; CD110; THPOR; THCYT2; thrombopoietin receptor; TPO-R; myeloproliferative leukemia protein; myeloproliferative leukemia virus oncogene; proto-oncogene c-Mpl; MPL proto-oncogene, thrombopoietin receptor

Gene ID

[4352](#)

UniProt ID

[P40238](#)