

MPL Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1659a**Specification****MPL Antibody - Product Information**

Application	E, WB, FC
Primary Accession	P40238
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Calculated MW	71.2kDa KDa

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.

Immunogen

Purified recombinant fragment of human MPL expressed in E. Coli.

Formulation

Purified antibody in PBS with 0.05% sodium azide

MPL Antibody - Additional Information

Gene ID 4352

Other Names

Thrombopoietin receptor, TPO-R, Myeloproliferative leukemia protein, Proto-oncogene c-Mpl, CD110, MPL, TPOR

Dilution

E~~1/10000
WB~~1/500 - 1/2000
FC~~1/200 - 1/400

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small

aliquots to prevent freeze-thaw cycles.

Precautions

MPL Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

MPL Antibody - Protein Information

Name MPL

Synonyms TPOR

Function

Receptor for thrombopoietin that acts as a primary regulator of megakaryopoiesis and platelet production. May represent a regulatory molecule specific for TPO-R-dependent immune responses.

Cellular Location

Cell membrane; Single-pass type I membrane protein. Golgi apparatus. Cell surface

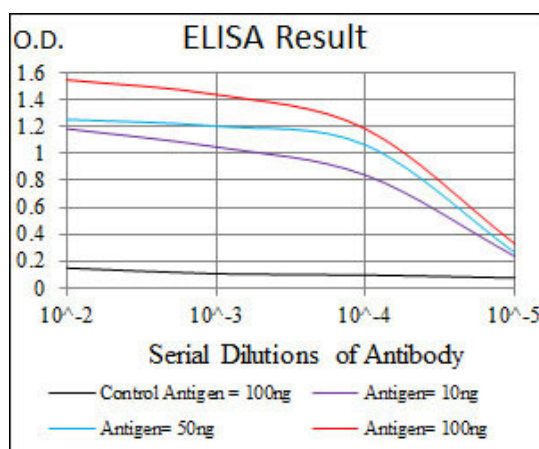
Tissue Location

Expressed at a low level in a large number of cells of hematopoietic origin. Isoform 1 and isoform 2 are always found to be coexpressed

MPL Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)



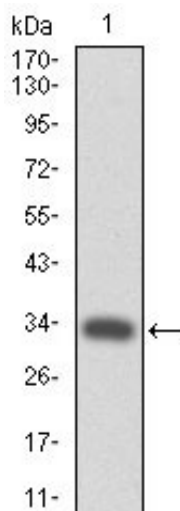


Figure 1: Western blot analysis using MPL mAb against human MPL (AA: 307-362) recombinant protein. (Expected MW is 32.2 kDa)

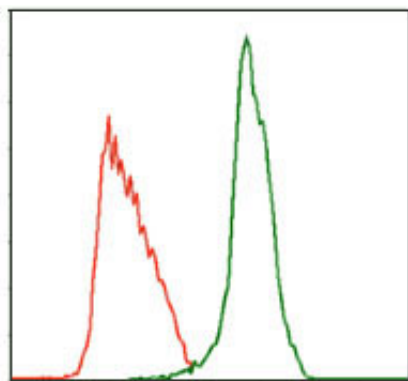


Figure 2: Flow cytometric analysis of MOLT4 cells using MPL mouse mAb (green) and negative control (red).

MPL Antibody - References

Cancer Res. 2009 Apr 15;69(8):3681-8. J Biol Chem. 2009 May 1;284(18):11781-91.