

MPL Monoclonal Antibody

Description

Product type	Antibody
Code	BT-MCA2635
Host	Mouse
Isotype	Mouse IgG2b
Size	100µL, 50µL
Immunogen	Purified recombinant fragment of human MPL expressed in E. Coli.
Mol wt	71.2kDa
Species reactivity	Human
Clonality	Monoclonal
Recommended application	FCM
Concentration	N/A
Full name	N/A
Synonyms	MPLV;TPOR;C-MPL;CD110

This product is for research use only, not for use in human, therapeutic or diagnostic procedure.

Background

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.

Recommended Dilution

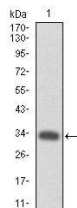
WB: 1:500 - 1:2000

FCM: 1:200 - 1:400

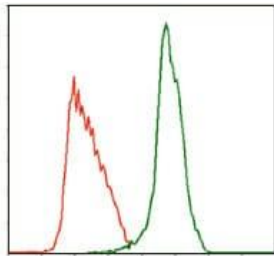
ELISA: 1:10000

Not yet tested in other applications.

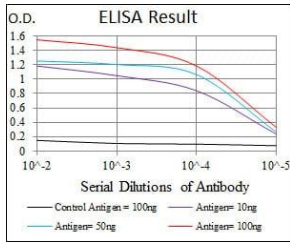
Images



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



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



Black line: Control Antigen (100 ng); Purple line: Antigen(10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng);

Storage

Store at 4°C short term. Aliquot and store at -20°C long term.

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