SUITE 203, 17 Ramsey Road, Shirley, NY 11967, USA
Tel: 1-631-416-1478 Fax: 1-631-207-8356
Email: info@creative-biolabs.com
www.creative-biolabs.com

Product Information

MemDX™ Human MPL BaF3 Cell Line

Cat. No.: **S01YF-0324-KX220**
This product is for research use only and is not intended for diagnostic use.

Product Information

Target Protein
MPL

Target Protein Species
Human

Host Cell Type
BaF3

Target Classification
Kinases/Enzyme

Target Family
Kinases/Enzyme

Target Research Area
Cancer Research

Related Diseases
Myelofibrosis; Amegakaryocytic Thrombocytopenia

Product Properties

Assay Types
Functional assay and biological assay

Stability
16 passages

Mycoplasma Testing
Negative

Biosafety Level
Level 1

Activity
Yes

Form

Frozen cells

Freeze Medium

90% FBS+10% DMSO

Culture Medium

RPMI-1640+10%FBS

Selective Antibiotic(s)

Regular antibiotics active against mycoplasmas, bacteria and fungi.

Handling Notes

Frozen cells should be thawed immediately upon receipt and grown according to handling procedure to ensure cell viability and proper assay performance.
Note: Do not freeze the cells upon receipt as it may result in irreversible damage to the cell line.
Disclaimer: We cannot guarantee cell viability if the cells are not thawed immediately upon receipt and grown according to handling procedure.

Incubation

37°C with 5% CO_2

Applications

Anti-proliferation assay and PD assay

Application Notes

Cells were plated in a 384-well plate and incubated overnight at 37°C and 5% CO_2 to allow the cells to attach and grow. Cells were then stimulated with a control for high-throughput drugs screening andfunctional assays.

Use Restrictions

These cells are distributed for research use only.

Shipping

Dry ice

Storage

Liquid nitrogen

Target

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

SUITE 203, 17 Ramsey Road, Shirley, NY 11967, USA
Tel: 1-631-416-1478 Fax: 1-631-207-8356
Email: info@creative-biolabs.com