**BACKGROUND**

Thrombopoietin (TPO or THPO), also known as c-Mpl ligand (c-Mpl L), is a cytokine that plays a central role in megakaryopoiesis by influencing the development and maturation of megakaryocytes and platelet production from hematopoietic stem cells. TPO exerts its biological effects through the TPO receptor, c-Mpl. c-Mpl is a member of the cytokine receptor superfamily, and its expression is restricted to hematopoietic tissues and cells, such as bone marrow, spleen, fetal liver and CD34+ cells. Stimulation of c-Mpl with TPO results in the activation of the Janus tyrosine kinase family members, Tyk2 and JAK2, which in turn phosphorylate Stat5 and Stat3, causing their nuclear translocation and the transcription of Stat responsive genes. Mutations in c-Mpl have been implicated as the cause of certain human disorders, including congenital amegakaryocytic thrombocytopenia (CAMT) and thrombocytopenia with absent radii (TAR) syndrome.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: MPL (human) mapping to 1p34.2; Mpl (mouse) mapping to 4D2.1.

**SOURCE**

c-Mpl (E-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 531-569 near the C-terminus of c-Mpl of human origin.

**PRODUCT**

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Blocking peptide available for competition studies, sc-377417 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

c-Mpl (E-7) is recommended for detection of c-Mpl of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for c-Mpl siRNA (h): sc-29853, c-Mpl shRNA Plasmid (h): sc-29853-SH, c-Mpl shRNA Plasmid (m): sc-29854-SH, c-Mpl shRNA (h) Lentiviral Particles: sc-29853-V and c-Mpl shRNA (m) Lentiviral Particles: sc-29854-V.

Molecular Weight of c-Mpl: 71 kDa.

Positive Controls: M1 whole cell lysate: sc-364782, Ramos cell lysate: sc-2216 or U266 whole cell lysate: sc-364800.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.