

Rabbit Anti-CD110/TPOR/c-Mpl Polyclonal: RC0304

Intended Use: For Research Use Only

Description: CD110 (TPOR or c-Mpl), 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. CD110 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. Expression of c-Mpl is restricted to hematopoietic tissues and cells, such as bone marrow, spleen, fetal liver and CD34+ cells. Stimulation of c-Mpl with CD110 results in the activation of the Janus tyrosine kinase family members, Tyk 2 and JAK2, which in turn phosphorylate Stat5 and Stat3, causing their nuclear translocation and the transcription of Stat responsive genes. Defects in MPL are a cause of congenital amegakaryocytic thrombocytopenia (CAMT). CAMT is a disease characterized by isolated thrombocytopenia and megakaryocytopenia with no physical anomalies.

Specifications

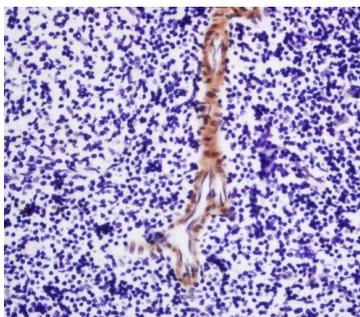
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|---------------|--|
| Clone: | Polyclonal |
| Source: | Rabbit |
| Isotype: | IgG |
| Reactivity: | Human, mouse, rat |
| Immunogen: | Synthesized peptide derived from the Internal region of human CD110 |
| Localization: | Membrane |
| Formulation: | Purified antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3) |
| Storage: | Store at 2°- 8°C |
| Applications: | IHC, WB |
| Package: | |

| Description | Catalog No. | Size |
|-------------------------------|-------------|------|
| CD110/TPOR/c-Mpl Concentrated | RC0304 | 1 ml |

IHC Procedure*

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|---------------------------|--|
| Positive Control Tissue: | Spleen, liver, lung, pancreas, placenta |
| Concentrated Dilution: | 10-50 |
| Pretreatment: | Tris EDTA pH9.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C |
| Incubation Time and Temp: | Overnight @ 4°C |
| Detection: | Refer to the detection system manual |

* Result should be confirmed by an established diagnostic procedure.



FFPE rat spleen stained with anti-CD110 using DAB

References:

1. Megakaryocyte polyploidy is inhibited by lysyl oxidase propeptide. Eliades, A, et al. Cell cycle (Georgetown, Tex.) 12 1242-50, 2013.
2. Eltrombopag inhibition of acute myeloid leukemia cell survival does not depend on c-Mpl expression. Sugita, M; et al., Leukemia 27, 1207-10, 2013.
3. Low or undetectable TPO receptor expression in malignant tissue and cell lines derived from breast, lung, and ovarian tumors. Erickson, Miller, et al. BMC cancer 12 405 2012.

Doc. 100-RC0304
Rev. A