

Mouse Thrombopoietin (TPO) ELISA Kit

Catlog Number: PAK-HMM-0041

• Description

Thrombopoietin (TPO) is the most important cytokine that promotes platelet production. TPO exerts its platelet-promoting effect by binding to the TPO receptor (TPO-R) on the cell surface. TPO-R agonists (TPO-RA) efficiently stimulate platelet production by binding to and activating the TPO-R. TPO is the most critical cytokine in the organism that promotes platelet production. TPO in the circulation is synthesized mainly by hepatocytes and, to a lesser extent, by bone marrow stromal cells and renal cells. TPO consists of 2 distinct structural domains, including an erythropoietin (EPO)-like structural domain composed of amino acid residues from positions 1 to 153 and a glycosyl-rich structural domain composed of amino acid residues from positions 154 to 332.



• Basic Information

Test Species: Mouse

Synonyms: THPO; MGDF; MKCSF; ML; MPLLG; Myeloproliferative Leukemia Virus Oncogene Ligand; Megakaryocyte Growth And Development Factor; Megakaryocyte Stimulating Factor

Sample Type: Serum, plasma, tissue homogenates, cell lysates, cell culture supernatants and other biological fluids.

Detection Methods: Sandwich ELISA

Sensitivity: 3.28 pg/mL

Detection Range: 15.62-1000 pg/mL

Accuracy: The intraplate coefficient of variation is less than 10% and the interplate coefficient of variation is less than 10%.

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• Detection Principle

The kit is based on a double antibody sandwich enzyme-linked immunosorbent assay (ELISA). To the microtiter wells pre-coated with mouse thrombopoietin (TPO) capture antibody, the sample, standard, biotin labeled detection antibody, HRP enzyme conjugate are added sequentially, and then incubated and washed, and then the color is developed with the substrate TMB, which is catalyzed by the enzyme (HRP) to turn into blue, and then converted into the final yellow color under the action of acid. There is a positive correlation between the color and the amount of mouse thrombopoietin (TPO) in the sample. The absorbance (OD) is measured at 450 nm by an enzyme meter and the concentration of the sample is calculated.

• Applications

The kit detects TPO in mice in samples without significant cross-reactivity with its analogs.

• Specification

48T, 96T

• Storage & Transportation

2-8°C

Shelf Life: 6 months

