

CHASELECTION**Recombinant Mouse TPO, Tag Free**

货号(Catalog Number): CY111FXXXX(L)

别名(synonym):

THCYT1; THPO; thrombopoietin nirs variant 1;

Thrombopoietin; Tpo; TPOMKCSF; MKCSF;

MK-CSF

来源(Source): Human embryonic kidney cell, HEK293-derived mouse TPO protein**蛋白结构 (Structure):**

该蛋白不含标签

基因 ID: P40226**氨基酸序列:**

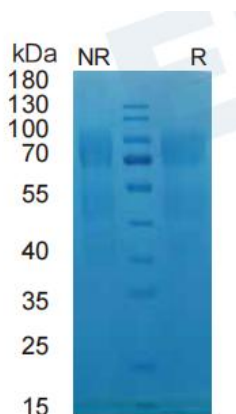
Ser22-Thr356

分子量大小(MW):

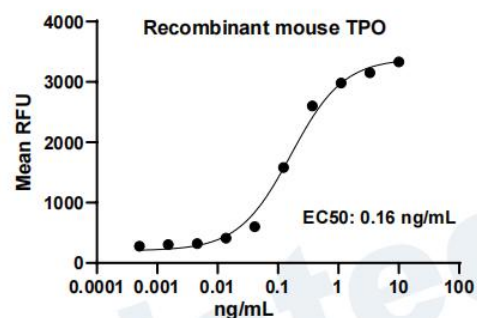
35.6 kDa

纯度 (Purity) :

> 95%, determined by SDS-PAGE

SDS-PAGE

4 ug/lane protein was resolved with SDS-PAGE under non-reducing (NR) and reducing (R) conditions and visualized by CoomassieBlue staining.

活性检测 (Biological Activity) :

Recombinant mouse TPO stimulates cell proliferation of the MO7e human megakaryocytic leukemic cells.

内毒素含量 (Endotoxin) :

<0.010 EU per 1 ug of the protein by the LAL method

制剂(Formulation):

Solution protein.

Dissolved in sterile PBS buffer.

This solution can be diluted into other aqueous buffers. Centrifuge the vial prior to opening.

储存与运输(Storage):

Avoid repeated freeze-thaw cycles.

It is recommended that the protein be aliquoted for optimal storage.

36 months from date of receipt, -20 to -70 °C as supplied.

Shipping with dry ice

产品背景介绍 (Production) :

Thrombopoietin (Tpo), is a key regulator of megakaryocytopoiesis and thrombopoiesis. It is principally produced in the liver and is bound and internalized by the receptor Tpo R/c-mpl. Defects in the Tpo-Tpo R signaling pathway are associated with a variety of platelet disorders. The 356 amino acid (aa) mouse Tpo precursor is cleaved to yield the 335 aa mature protein. Mature mouse Tpo shares 71% and 81% aa sequence homology with human and rat Tpo, respectively. It is an 80-85 kDa protein that consists of an N-terminal domain with homology to Erythropoietin (Epo) and a C-terminal domain that contains multiple N-linked and O-linked glycosylation



sites. Tissue specific alternate splicing of mouse Tpo generates multiple isoforms with internal deletions, insertions, and/or C-terminal substitutions. Tpo promotes the differentiation, proliferation, and maturation of MK and their progenitors. Several other cytokines can promote these functions as well but only in cooperation with Tpo. Notably, IL-3 independently induces MK development, although its effects are restricted to early in the MK lineage. Tpo additionally promotes platelet production, aggregation, ECM adhesion, and activation. It is cleaved by platelet-derived thrombin following Arg191 within the C-terminal domain and subsequently at other sites upon extended digestion. Full length Tpo and shorter forms circulate in the plasma. The C-terminal domain is not required for binding to Tpo R or inducing MK growth and differentiation. Aside from its hematopoietic effects, Tpo is expressed in the brain where it promotes the apoptosis of hypoxia-sensitized neurons and inhibits neuronal differentiation by blocking NGF-induced signaling.

