Thpo
Recombinant Mouse Thrombopoietin/Fc Chimera

Catalog No.	CS454A CS454B	**Quantity:**	100 µg 1 mg

Alternate Names: MI, Tpo, Mgdf, TPO1, Tpo2, Tpo3, Tpo4, Mpllg

Description: Thrombopoietin (TPO), also known as Thrombopoiesis Stimulating Factor (TSF), is a glycoprotein hormone and the major stimulator of megakaryopoiesis and platelet production. TPO is expressed in liver, kidney, spleen, lung, bone marrow, and brain. The TPO receptor is a product of the proto-oncogene c-mpl and displays homology with type I cytokine receptor superfamily members. The receptor is present mainly on hematopoietic stem cells, megakaryocytic progenitors, megakaryocytes, and platelets. TPO is the primary regulator of platelet production by megakaryocytes. It stimulates the proliferation of hematopoietic stem cells, primitive progenitors, megakaryocytes, and platelets. Analogous to the effect of erythropoietin (EPO), the primary mode of action of TPO is inhibition of apoptosis of its target cells. By contrast, TPO is strongly proapoptotic in the brain and acts as a counterpart of EPO which has neuroprotective properties.

Mouse TPO (Ser22-Thr356) is expressed recombinantly, purified by chromatography, sterile filtered and lyophilized. Mouse TPO can be used for a variety of applications, including megakaryocyte proliferation and differentiation in vitro, in vitro expansion of hematopoietic stem cells, in vitro platelet activation and apoptosis assays. >95 percent pure by SDS-PAGE and biologically active as measured in a proliferation assay with human TF-1 erythroleukemia cells. The ED_{50} for this activity is typically < 5 ng/ml. Add deionized water to original volume, aliquot and freeze unused portion.

The Fc Fusion Protein is glycosylated and expressed as a chimera with the Fc region of mouse immunoglobulin (heavy chain hinge, CH2 and CH3). Fc fusion proteins are typically more stable and resistant to degradation and clearance than native cytokines. This protein appears in multiple glycoforms in SDS-PAGE under both non-reducing and reducing conditions.

Gene ID: 21832

Molecular Weight: 65.7 kDa

Formulation: Lyophilized from a 0.5 ml solution of PBS

Purity: >95% by SDS-PAGE analysis

Specific Activity: ED_{50} < 5 ng/ml as determined in a cell proliferation assay using human TF-1 erythroleukemia cells.

Storage & Stability: When stored at -80°C, product is stable for 3 years from date of delivery. **Avoid repeated freeze-thaw cycles.**

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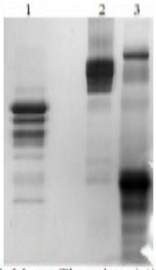

1. Mouse Thrombopoietin Fc Fusion (3 ug) R
2. Mouse Thrombopoietin Fc Fusion (3 ug) NR
3. Molecular Weight Markers