

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Thrombopoietin R/Tpo R in Western blots. In Western blots, less than 1% cross-reactivity with recombinant human Tpo R and recombinant mouse Epo R is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Thrombopoietin R/Tpo R Ser18-Trp483 Accession # CAA52031
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse Thrombopoietin R/Tpo R Fc Chimera (Catalog # 1317-TR)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Thrombopoietin receptor (Tpo R), also known as myeloproliferative leukemia protein (*c-mpl*), is a type I membrane protein that is a member of the hematopoietin/cytokine receptor superfamily. Thrombopoietin (Tpo) is a key regulator of megakaryocytopoiesis and thrombopoiesis *in vitro* and *in vivo*. Receptor dimerization occurs upon ligand binding. Downstream signaling cascades utilize the Ras/MAP and JAK/STAT pathways (1). In humans, variations at the 3' end on the molecule result in the formation of 3 distinct mRNA species, a P-form, a K-form, and a potentially secreted form. The predominant form in humans is the P-form, which encodes a full length receptor. In mouse, mRNA for a full length form, a potentially secreted form, and a form lacking 8 amino acids in the extra-cytoplasmic domain has been detected (2). The human and mouse receptors share approximately 81% amino acid identity. Tpo R is expressed at low levels in various cell types including hematopoietic progenitor cells, megakaryocytes and platelets.

References:

1. Kuter, D.J. and J. Li (2001) in *Cytokine Reference*, p. 1953. Oppenheim, J.J. and M. Feldmann eds. Academic Press.
2. Kaushansky, K. and J.G. Drachman (2002) *Oncogene* **21**:3359.