

## Anti-Thrombopoietin [TN1 ] Standard Size Ab00746-1.1

**Isotype and Format:** Mouse IgG1, Kappa

**Clone Number:** TN1

**Alternative Name(s) of Target:** C-mpl ligand; Megakaryocyte colony-stimulating factor; Megakaryocyte growth and development factor; TPO

**UniProt Accession Number of Target Protein:** P40225

**Published Application(s):** crystallization, neutralize, ELISA

**Published Species Reactivity:** Human

**Immunogen:** TN1 was prepared by immunizing BALB/c mice by intraperitoneal injection of recombinant human TPO. The Fab fragment was produced via incubation with papain which cleaves at the hinge region of the IgG to remove the Fc region. The product is then subsequently incubated under reducing conditions and the free Cys residue blocked with iodoacetamide.

**Specificity:** TN1 binds specifically to TPO at an epitope which consists of residues from the C-terminal end of helix C (R98) and the C-D crossover loop (residues 102-115) and residues from the C-terminal half of helix B (residues 57-61) (PMID: 14769915). TPO is a heavily glycosylated cytokine which acts as the ligand for the hematopoietic receptor c-Mpl. The primary role of TPO is as a regulator of megakaryocytopoiesis and platelet production. Stimulated c-Mpl transduces signals into target cells via the JAK/STAT, Ras and MAPK pathways.

**Application Notes:** TN1 can neutralize the biological activity of TPO and can be used to detect TPO in ELISA studies. The Fab fragment of TN1 can also be used to aid the crystallisation of TPO by increasing the area upon which stable crystal contacts can be made (PMID: 11976502).

**Antibody First Published in:** Tahara et al. A sensitive sandwich ELISA for measuring thrombopoietin in human serum: serum thrombopoietin levels in healthy volunteers and in patients with haemopoietic disorders. British Journal of Haematology 1996, 93, 783-788 [PMID:](#)

**Note on publication:** Describes the use of TN1 in the development of a reproducible, highly sensitive and specific human TPO ELISA procedure

### Product Form

**Size:** 200 µg Purified antibody.

**Purification:** Protein A affinity purified

**Supplied In:** PBS with 0.02% Proclin 300.

**Storage Recommendation:** Store at 4°C for up to 3 months. For longer storage, aliquot and store at -

20°C.

**Concentration:** 1 mg/ml.

Important note - This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.