

## Anti-Human Thrombopoietin Antibody [PSH13-97] - BSA and Azide free (Detector)

# HA725119



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	ELISA(Det)
<b>Clone number:</b>	PSH13-97

**Description:** Thrombopoietin (THPO) also known as megakaryocyte growth and development factor (MGDF) is a protein that in humans is encoded by the THPO gene. Thrombopoietin is a glycoprotein hormone produced by the liver and kidney which regulates the production of platelets. It stimulates the production and differentiation of megakaryocytes, the bone marrow cells that bud off large numbers of platelets. Megakaryocytopoiesis is the cellular development process that leads to platelet production. The protein encoded by this gene is a humoral growth factor necessary for megakaryocyte proliferation and maturation, as well as for thrombopoiesis. This protein is the ligand for MLP/C\_MPL, the product of myeloproliferative leukemia virus oncogene.

**Immunogen:** Recombinant protein within Human Thrombopoietin aa 22-353 (HA211023).

**Positive control:** Recombinant Human Thrombopoietin protein (HA211023).

**Subcellular location:** Secreted.

**Database links:** SwissProt: P40225 Human

**Recommended Dilutions:**

**ELISA(Det)** Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH13-96] to Human Thrombopoietin antibody (Capture) (HA725118) and recombinant Human Thrombopoietin protein (HA211023) as the standard. The reference range value is 31.3-2,000 pg/mL.

**Storage Buffer:** 1\*PBS (pH7.4).

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

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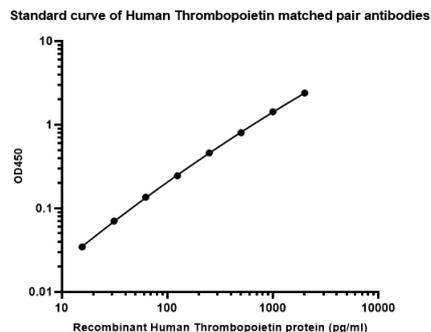
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## Images

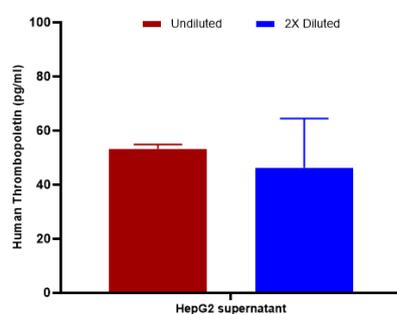
**Fig1:** Sandwich ELISA analysis of human Thrombopoietin matched pair antibodies

Capture: HA725118, Human Thrombopoietin Rabbit mAb [PSH13-96]

Detector: HA725119, Human Thrombopoietin Rabbit mAb [PSH13-97]



Elisa assay was performed by coating wells of a 96-well plate with 50  $\mu$ l per well of capture antibody (HA725118) diluted in carbonate/bicarbonate buffer, at a concentration of 2  $\mu$ g/ml overnight at 4°C. Wells of the plate were washed, blocked with 150  $\mu$ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human Thrombopoietin protein (HA211023) starting from 2,000 pg/ml to 0 pg/ml and detect antibody (HA725119, Biotin, 0.2  $\mu$ g/ml) for 1 hour at 30°C with shaking. Then the plate was washed and incubated with 50  $\mu$ l per well of SA-HRP for 0.5 hour at 30°C with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

**Fig2:** Interpolated concentrations of native Thrombopoietin in HepG2 cell culture supernatant.

Capture: HA725118, Human Thrombopoietin Rabbit mAb [PSH13-96]

Detector: HA725119, Human Thrombopoietin Rabbit mAb [PSH13-97]

The concentrations of Thrombopoietin were measured in duplicate and interpolated from the Thrombopoietin standard curve and corrected for sample dilution. Undiluted samples are HepG2 cell culture supernatant 100%. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD, n=2). The mean Thrombopoietin concentration was determined to be 47.8 pg/ml in HepG2 cell culture supernatant.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References

1. Sun Y et al. Notch1 regulates hepatic thrombopoietin production. *Blood*. 2024 Jun
2. Kaushansky K. Thrombopoietin, the Primary Regulator of Platelet Production: From Mythos to Logos, a Thirty-Year Journey. *Biomolecules*. 2024 Apr

