



# Recombinant Protein Technical Manual

**Recombinant Human Thrombospondin/THBS1  
Protein (His Tag)(Active)**  
RPES4364

## Product Data:

**Product SKU:** RPES4364

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P07996

## Protein Information:

**Molecular Mass:** 129.2 kDa

**AP Molecular Mass:** 130&170 kDa

**Tag:** C-His

**Bio-activity:** Immobilized Rhesus macaque CD47-Fc(Cat: PKSQ050076) at 10µg/ml(100 µl/well) can bind Human THBS1-His.

**Purity:** > 70% as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:** Functional ELISA

**Synonyms:** Thrombospondin; THBS1; TSP; TSP1

## Immunogen Information:

**Sequence:** Asn19-Pro1170

## Background:

Thrombospondin (TSP) is a 15080kDa calcium-sensitive protein that is secreted as a disulfide-linked homotrimer. TSP regulates a wide range of cellular functions including their interactions with other cells and with the extracellular matrix (ECM). TSP contains an N-terminal Laminin G-like globular domain, an extended central region with one vWFC domain, 3 TSP type 1 domains, 2 EGF-like domains, and 8 TSP type 3 domains, and a globular TSP C-terminal domain. Distinct regions of TSP have been associated with binding to particular ECM or cellular molecules. TSP counteracts the angiogenic, hypotensive, and antithrombotic effects of nitric oxide (NO). It binds and neutralizes VEGF, blocks VEGF R2 signaling on vascular endothelial cells (EC), and destabilizes adhesive contacts between EC. TSP also plays an important role in wound repair and tissue fibrosis by binding latent TGF-beta and inducing release of the active cytokine from the latency associated peptide (LAP).