

Recombinant Human Thrombospondin 1

Cat. No. THBS1-185H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Thrombospondin 1 is glycosylated with N-linked sugars and produced using baculovirus vectors in <i>insect cells</i> . Recombinant Human THBS1 is Reactive with A4.1 anti-TSP mAb and its Mw is 140,000 Dalton.
Species	Human
Source	Insect Cells
Description	Thrombospondin-1 (TSP1) is a member of the Thrombospondin family and is encoded by the gene THBS1 which is a subunit of a disulfide-linked homotrimeric protein. Thrombospondin-1 is an adhesive glycoprotein that mediates cell-to-cell and cell-to-matrix interactions. Thrombospondin-1 can bind to fibrinogen, fibronectin, laminin, type V collagen and integrins alpha-V/beta-1. TSP1 has been shown to play roles in platelet aggregation, angiogenesis, and tumorigenesis. TSP1 has been shown to be a natural inhibitor of neovascularization and tumorigenesis in healthy tissue. TSP1 interacts with no less than 12 cell adhesion receptors, including CD36, α v integrins, β 1 integrins, syndecan, and integrin-associated protein (IAP or CD47). It also interacts with various proteases involved in angiogenesis, including plasminogen, urokinase, matrix metalloproteinase, thrombin, cathepsin, and elastase. Positive and negative modulation of endothelial cell adhesion, motility, and growth are attributed to TSP1. Recently, thrombospondin-1 was found to bind to the reelin receptors, ApoER2 and VLDLR, in so doing affecting neuronal migration in the rostral migratory stream.

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Physical Appearance	Sterile Filtered clear solution.
Formulation	The sterile protein solution contains 20mM Sodium phosphate, pH 6.0 and 300mM NaCl.
Purity	Greater than 90.0% as determined by:(a) Analysis by RP-HPLC; (b) Analysis by SDS-PAGE.
Storage	Recombinant Human TSP should be stored between 2°C- 8°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	THBS1 thrombospondin 1 [Homo sapiens]
Synonyms	THBS1; thrombospondin 1; TSP1; THBS; TSP; THBS-1; TSP-1; thrombospondin-1p180
Gene ID	7057
mRNA Refseq	NM_003246
Protein Refseq	NP_003237
MIM	188060
UniProt ID	P07996
Chromosome Location	15q15

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Pathway	Bladder cancer; ECM-receptor interaction; Focal adhesion; TGF-beta signaling pathway; p53 signaling pathway
Function	calcium ion binding; collagen V binding; eukaryotic cell surface binding; fibrinogen binding; fibroblast growth factor 2 binding; fibronectin binding; heparin binding; identical protein binding; integrin binding; laminin binding; low-density lipoprotein binding; proteoglycan binding; structural molecule activity; transforming growth factor beta binding
PDB rendering based on 1lsl.	