

THBS1 Human

Description: Recombinant Human THBS1 is glycosylated with N-linked sugars and produced using baculovirus vectors in insect cells. Recombinant Human THBS1 is Reactive with A4.1 anti-TSP mAb and its Mw is 140,000 Dalton.

Synonyms: Thrombospondin-1, THBS1, TSP, TSP1, THBS, THBS-1.

Source: Baculovirus Insect Cells.

Physical Appearance: Sterile Filtered clear solution.

Purity: Greater than 90.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Formulation:

The sterile protein solution contains 20mM Sodium phosphate, pH 6.0 and 300mM NaCl.

Stability:

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).

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Introduction:

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, v integrins, 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.

References:

1. Title: Tasquinimod (ABR-215050), a quinoline-3-carboxamide anti-angiogenic agent, modulates the expression of thrombospondin-1 in human prostate tumors. Publication: Molecular Cancer 2010, 9:107
doi:10.1186/1476-4598-9-107. Link: <http://www.molecular-cancer.com/content/9/1/107/2>. Title: Regulation of Angiogenesis-Related Prostaglandin F2alpha-Induced Genes in the Bovine Corpus Luteum. Publication: Published online before print December 14, 2011, doi: 10.1095/biolreprod.111.095067 Link: <http://www.biolreprod.org/content/early/2011/12/12/biolreprod.111.095067.short>

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