

TGFB2 active protein

TGFB2 Protein, Human, Recombinant (ECD, hFc Tag)

CATALOG #
AAA257875

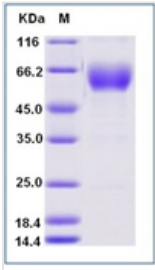
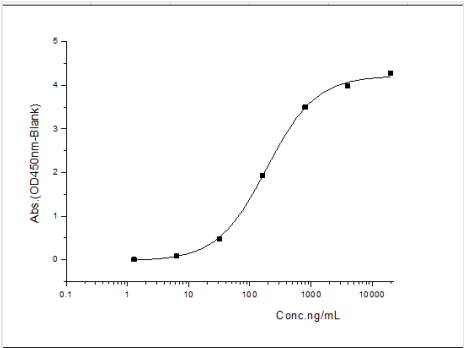
HOST
HEK293 Cells

PRODUCT SYNONYMS

TGFB2; TGFB2 Protein; Human; Recombinant (ECD; hFc Tag); Human TGFB2 Protein (Fc Tag); AAT3 Protein; FAA3 Protein; LDS1B Protein; LDS2 Protein; LDS2B Protein; MFS2 Protein; RIIC Protein; TAAD2 Protein; TGFbeta-RII Protein; TGFR-2 Protein; transforming growth factor; beta receptor II (70/80kDa); TGFB2 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Asp159
Species	Human
Endotoxin	<1.0EU per ug protein as determined by the LAL method.
Predicted N Terminal	Thr 23
Tag	C-human IgG1-Fc
Protein Construction	A DNA sequence encoding the human TGFB2 (NP_003233.4)(Met1-Asp159) was expressed with the Fc region of human IgG1 at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Activity	Measured by its binding ability in a functional ELISA. Immobilized TGFB2h (1-166Q) at 10ug/mL (100uL/well) can bind TGFB1-His/Biotin. The EC50 of human TGFB1-His/Biotin is 130-300ng/mL.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.



SDS-PAGE

Application Data

Measured by its binding ability in a functional ELISA. Immobilized TGFBR2h (1-166Q) at 10 ug/mL (100 uL/well) can bind TGFβ1-His/Biotin, the EC50 of human TGFβ1-His/Biotin is 130-300 ng/mL.

ADDITIONAL INFORMATION

Related Product Information for TGFBR2 active protein	Background: TGFBR2 is a member of the Ser/Thr protein kinase family and the TGFB receptor subfamily. It is a transmembrane protein. TGFBR2 is comprised of a C-terminal protein kinase domain and an N-terminal ectodomain. The ectodomain consists of a compact fold containing nine beta-strands and a single helix stabilized by a network of six intra strand disulfide bonds. The folding topology includes a central five-stranded antiparallel beta-sheet, eight-residues long at its centre, covered by a second layer consisting of two segments of two-stranded antiparallel beta-sheets. TGFBR2 has a protein kinase domain, forms a heterodimeric complex with another receptor protein, and binds TGF-beta. This receptor/ligand complex phosphorylates proteins, which then enter the nucleus and regulate the transcription of a subset of genes related to cell proliferation. Mutations in TGFBR2 gene have been associated with Marfan syndrome, Loeys-Deitz Aortic Aneurysm Syndrome, and the development of various types of tumors. TGFBR2 attenuates the biological activities of TGF-beta in colorectal cancer. TGFBR2 expression is increased in oral squamous cell carcinoma cells. Its expression is decreased by IL-1beta while inducing Sp3 via NFkappaB. TGFβ2 and TGFBR2 are involved in the antiestrogenic activity.
References	Yu Y, et al. (2012) MicroRNA-21 induces stemness by downregulating transforming growth factor beta receptor 2 (TGFbetaR2) in colon cancer cells. Carcinogenesis. 33(1):68-76. Shima K, et al. (2011) TGFBR2 and BAX mononucleotide tract mutations, microsatellite instability, and prognosis in 1072 colorectal cancers. PLoS One. 6(9):e25062.Biros E, et al. (2011) Meta-analysis of the association between single nucleotide polymorphisms in TGF-beta receptor genes and abdominal aortic aneurysm. Atherosclerosis. 219(1):218-23.

NCBI AND UNIPROT INFORMATION

NCBI GI #	67782324
NCBI GeneID	7048
NCBI Accession #	NP_003233.4
NCBI GenBank Nucleotide #	NM_003242.5
UniProt Accession #	P37173; Q15580; Q6DKT6; Q99474; B4DTV5
Molecular Weight	67,457 Da
NCBI Official Full Name	TGF-beta receptor type-2 isoform B
NCBI Official Synonym Full Names	transforming growth factor, beta receptor II (70/80kDa)
NCBI Official Symbol	TGFBR2
NCBI Official Synonym Symbols	AAT3; FAA3; LDS2; MFS2; RIIC; LDS1B; LDS2B; TAAD2; TGFR-2; TGFbeta-RII
NCBI Protein Information	TGF-beta receptor type-2; tbetaR-II; TGF-beta type II receptor; TGF-beta receptor type IIB; transforming growth factor beta receptor type IIC; transforming growth factor, beta receptor II beta; transforming growth factor, beta receptor II alpha; transform

UniProt Protein Name	TGF-beta receptor type-2
UniProt Gene Name	TGFBR2
UniProt Synonym Gene Names	TGFR-2; TGF-beta receptor type II; TbetaR-II
UniProt Entry Name	TGFR2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/hek293-active-protein/tgfr2/257875>