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Datasheet for ABIN7520558  
**TGFBR1 Protein (Fc Tag,His tag)**

### Overview

Quantity:	10 µg
Target:	TGFBR1
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This TGFBR1 protein is labelled with Fc Tag,His tag.

### Product Details

Purpose:	Active Recombinant Human TGFR-1/ALK-5 Protein
Sequence:	MEAAVAAPRP RLLLLVLA AA AAAAALLPG ATALQCFCHL CTKDNFTCVT DGLCFVSVTE TTDKVIHNSM CIAEIDLIPR DRPFVCPASS KTGSVTTTYC CNQDHCNKIE LPTTVKSSPG LGPVE
Specificity:	Met1-Glu125
Purity:	> 95 % by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	<1EU/µg
Biological Activity Comment:	Measured by its binding ability in a functional ELISA. Immobilized Human TGF-beta Protein at 2 µg/mL (100 µL/well) can bind TGFBR1 with a linear range of 3.9-80.49 ng/mL.

## Target Details

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Target: TGFBR1

Alternative Name: TGFR-1/ALK-5 ([TGFBR1 Products](#))

Background: Description: Transforming growth factor, beta receptor I, also known as Transforming growth factor-beta receptor type I, Serine / threonine-protein kinase receptor R4, Activin receptor-like kinase 5, SKR4, ALK-5, and TGFBR1, is a single-pass type I membrane protein that belongs to the protein kinase superfamily and TGFB receptor subfamily. TGFBR1 / ALK-5 is found in all tissues examined. It is most abundant in placenta and least abundant in brain and heart. TGF-beta functions as a tumor suppressor by inhibiting the cell cycle in the G1 phase. Administration of TGF-beta is able to protect against mammary tumor development in transgenic mouse models in vivo. Disruption of the TGF-beta/SMAD pathway has been implicated in a variety of human cancers, with the majority of colon and gastric cancers being caused by an inactivating mutation of TGF-beta RII. On ligand binding, TGFBR1 / ALK-5 forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which auto-phosphorylate, then bind and activate SMAD transcriptional regulators.

Name: TGFBR1,AAT5,ACVRLK4,ALK-5,ALK5,ESS1,LDS1,LDS1A,LDS2A,MSSE,SKR4,TGFR-1,tbetaR-I,TBRI,TBR-i

Gene ID: 7046

UniProt: [P36897-1](#)

Pathways: [Growth Factor Binding](#)

## Application Details

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Restrictions: For Research Use only

## Handling

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Format: Lyophilized

Reconstitution: Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1 % BSA, 5 % HSA, 10 % FBS or 5 % Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Buffer: Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

Storage: -20 °C,-80 °C

## Handling

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Storage Comment: Store the lyophilized protein at -20°C to -80°C for long term. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.