Datasheet for ABIN7317107

TGFBR1 Protein (AA 200-503) (GST tag,His tag)

1 Image

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Overview

Quantity:	50 µg
Target:	TGFBR1
Protein Characteristics:	AA 200-503
Origin:	Human
Source:	Baculovirus infected Insect Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This TGFBR1 protein is labelled with GST tag,His tag.

Product Details

Purpose:	Recombinant Human TGFBR1/ALK-5 Protein (aa 200-503, His & GST Tag)(Active)
Sequence:	Thr 200-Mey503
Characteristics:	A DNA sequence encoding the human ALK5 (P36897-1) (Thr200-Mey503) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	The specific activity was determined to be 40 nmol/min/mg using casein as substrate.

Target Details

Target:	TGFBR1

Target Details

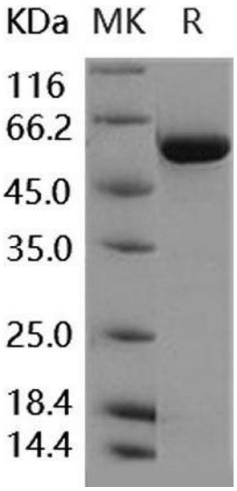
Alternative Name:	TGFBR1/ALK-5 (TGFBR1 Products)
Background:	Background: Transforming growth factor, beta receptor I, also known as Transforming growth factor-beta receptor type I , Serine / threonine-protein kinase receptor R4, Activin receptor-like kinase 5, SKR4, ALK-5, and TGFBR1, is a single-pass type I membrane protein which 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 I I 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. TGF-beta signaling via TGFBR1 / ALK-5 is not required in myocardial cells during mammalian cardiac development, but plays an irreplaceable cell-autonomous role regulating cellular communication, differentiation and proliferation in endocardial and epicardial cells. Defects in TGFBR1 / ALK-5 are the cause of Loeys-Dietz syndrome type 1A (LDS1A), Loeys-Dietz syndrome type 2A (LDS2A), and aortic aneurysm familial thoracic type 5 (AAT5). Synonym: AAT5,ACVRLK4,ALK-5,ALK5,ESS1,LDS1,LDS1A,LDS2A,MSSE,SKR4,tbetaR-I,TGFR-1
Molecular Weight:	62.6 kDa
Pathways:	Growth Factor Binding

Application Details

Restrictions:	For Research Use only

Handling

Format:	Frozen, Liquid
Buffer:	Supplied as sterile 20 mM Tris, 500 mM Nacl, pH 8.5, 10 % glycerol
Storage:	-20 °C
Storage Comment:	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.



Western Blotting

Image 1.