Datasheet for ABIN7540605

anti-TGFBR1 antibody (Extracellular)

Go to Product page

Overview

Quantity:	100 µg
Target:	TGFBR1
Binding Specificity:	Extracellular
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This TGFBR1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Flow Cytometry (FACS), Fluorescence Microscopy (FM)

Product Details

Purpose:	TGF beta Receptor 1 Antibody
Immunogen:	Anti-TGF beta receptor 1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an extracellular portion of human TGF beta receptor 1 conjugated to Keyhole Limpet Hemocyanin (KLH).
Isotype:	IgG
Cross-Reactivity (Details):	This affinity purified antibody is directed against human TGF beta receptor type-1 protein.
Purification:	The antibody was affinity purified from monospecific antiserum by immunoaffinity purification.
Sterility:	Sterile filtered

Target Details

Target:	TGFBR1
Alternative Name:	TGFBR1 (TGFBR1 Products)
Background:	Rabbit Anti-TGF-Beta Receptor Type-1 Antibody, TGF-Beta Receptor Type I, TGF-Beta Type I Receptor, Transforming Growth Factor Beta Receptor 1,Transforming Growth Factor-Beta Receptor Type I, Serine/Threonine-Protein Kinase Receptor R4, Activin A Receptor Type II-Like Kinase, 53 kDa, Activin Receptor-Like Kinase 5, TbetaR-I, TGFR-1, ALK-5, ALK5, SKR4, TBR-I,The transforming growth factor-beta family of polypeptides (TGF-beta1-3) are involved in the regulation of cellular processes, including division, differentiation, motility, adhesion and death. TGF-beta signals by binding the type II receptor (TGF-betaRII) which activates the type I receptor (TGF-betaRI). Transmembrane serine/threonine kinase forming with the TGF-beta type II serine/threonine kinase receptor, TGFBR2, the non-promiscuous receptor for the TGF-beta cytokines TGFB1, TGFB2 and TGFB3. Transduces the TGFB1, TGFB2 and TGFB3 signal from the cell surface to the cytoplasm and is thus regulating a plethora of physiological and pathological processes including cell cycle arrest in epithelial and hematopoietic cells, control of mesenchymal cell proliferation and differentiation, wound healing, extracellular matrix production, immunosuppression and carcinogenesis. The formation of the receptor complex composed of 2 TGFBR1 and 2 TGFBR2 Molecules symmetrically bound to the cytokine dimer results in the phosphorylation and the activation of TGFBR1 by the constitutively active TGFBR2. Activated TGFBR1 phosphorylates SMAD2 which dissociates from the receptor and interacts with SMAD4. The SMAD2-SMAD4 complex is subsequently translocated to the nucleus where it modulates the transcription of the TGF-beta-regulated genes. This constitutes the canonical SMAD-dependent TGF-beta signaling cascade. Also involved in non-canonical, SMAD-independent TGF-beta signaling pathways. For instance, TGFBR1 induces TRAF6 autoubiquitination which in turn results in MAP3K7 ubiquitination and activation to trigger apoptosis. Also regulates epithelial to mesenchymal transition through a SMAD-independent signaling pathway through PARD6A phosphorylation and activation. Mutations in this gene have been associated with Loeys-Dietz aortic aneurysm syndrome (LDAS). Anti-TGF beta receptor 1 Antibody is useful for researchers interested in skin cancer research, cardiac research, and mTOR Pathway and p38 MAPK Signaling Pathways.
Gene ID:	7046
NCBI Accession:	NP_001124388
UniProt:	P36897
Pathways:	Growth Factor Binding

Application Details

Application Notes:	ELISA_Dilution: 5 µg/mL Immunohistochemistry_Dilution: 1:100 Flow_Cytometry_Dilution: 1:40 IF_Microscopy_Dilution: 15 µg/mL Western_Blot_Dilution: 1:1000
Comment:	Anti-TGF beta Receptor 1 Antibody has been tested in ELISA, WB, IHC, and FLOW. Expect a band at ~47.7 kDa in western blot using appropriate lysates. Positive control used: TGFB1 overexpressed lysate, HEK, HeLa, or Mouse Liver in WB, Hu pancreas in IHC, MCF7 cells FLOW.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: None Preservative: 0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months