DATASHEET

TGF beta Receptor I Recombinant Rabbit Monoclonal Antibody(ARA481)

CAT. NO. ARA5791

KEY FEATURES

Target	TGF beta Receptor I	**Source / Host**	Rabbit
Reactivity	Human, Mouse, Rat	**Clonality**	Monoclonal
Applications	WB,IP	**Conjugation**	Unconjugated
Isotype	IgG	**Storage**	at -20°C

BACKGROUND

TGF beta Receptor I (TGFBR1), also known as ALK5, is a serine/threonine protein kinase that forms a heteromeric complex with type II TGF-beta receptors upon TGF-beta binding, transducing the TGF-beta signal from the cell surface to the cytoplasm. The activated receptor complex phosphorylates SMAD2 and SMAD3, which translocate to the nucleus and regulate transcription of target genes. Mutations in TGFBR1 have been associated with Loeys-Dietz aortic aneurysm syndrome, and multiple transcript variants encoding different isoforms have been found for this gene.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:1,000 - 1:2,000
IP	Assay-dependent

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

OVERVIEW

Description	Recombinant rabbit monoclonal antibody to TGF beta Receptor I for WB and IP.
Specificity	Recognizes endogenous levels of TGF beta Receptor I protein.
Immunogen	Recombinant protein within human TGF beta Receptor I aa 34-503.
Molecular Weight	Predicted: 56 kDa; Observed: 50/37 kDa
Purification	Protein A affinity purification
Isotype	IgG
Form/Buffer	Liquid in PBS (pH 7.4) with 0.1% BSA, 40% glycerol and 0.2% ProClean 950.
Subcellular Location	Cell membrane, cell junction, tight junction, cell surface, membrane raft.
Alternative Names	AAT5, ALK5, ALK-5, ACVRLK4, SKR4, TGFR-1
Gene Symbol	TGFBR1
Entrez Gene	7046 (Human); 21812 (Mouse); 29591 (Rat)
SwissProt	P36897 (Human); Q64729 (Mouse); P80204 (Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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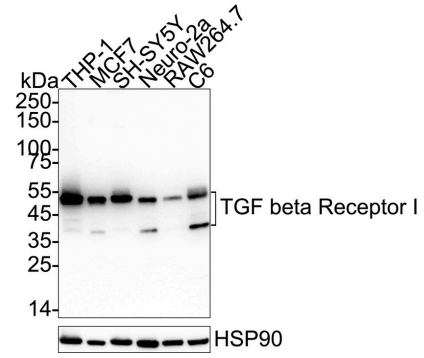
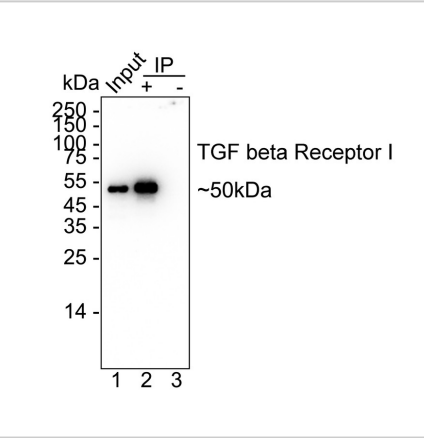
DATA



Western blot analysis of TGF beta Receptor I on different lysates with TGF beta Receptor I Recombinant Rabbit Monoclonal Antibody(ARA481) at 1:2,000 dilution.

Lane 1: THP-1 cell lysate
Lane 2: MCF7 cell lysate
Lane 3: SH-SY5Y cell lysate
Lane 4: Neuro-2a cell lysate
Lane 5: RAW264.7 cell lysate
Lane 6: C6 cell lysate

Lysates/proteins at 20 µg/lane.
Exposure time: 2 minutes. Blocking: 5% NFDM/TBST for 1 hour at room temperature. The primary antibody at 1:2,000 dilution was used overnight at 4°C. HRP-conjugated Goat Anti-Rabbit IgG (H+L) at 1:50,000 dilution was used for 1 hour at room temperature.
Predicted band size: 56 kDa; observed band size: 50/37 kDa



TGF beta Receptor I was immunoprecipitated from 0.2 mg THP-1 cell lysate with TGF beta Receptor I Recombinant Rabbit Monoclonal Antibody(ARA481) at 2 µg/10 µL beads. Western blot was performed from the immunoprecipitate using the same antibody at 1:2,000 dilution.

Lane 1: THP-1 cell lysate (input)
Lane 2: Immunoprecipitation in THP-1 cell lysate
Lane 3: Rabbit IgG instead of the primary antibody in THP-1 cell lysate

Blocking/dilution buffer: 5% NFDM/TBST. HRP-conjugated Goat Anti-Rabbit IgG (H+L) at 1:5,000 dilution was used for 1 hour at room temperature. Exposure time: 1 minute 7 seconds.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.

More information: www.arexbio.com