

# Product datasheet

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# ARG66432 anti-TGFBR2 / TGF beta Receptor II antibody

Package: 100 μg Store at: -20°C

# **Summary**

Product Description Rabbit Polyclonal antibody recognizes TGFBR2 / TGF beta Receptor II

Tested Reactivity Hu, Ms, Rat

Tested Application IHC-P, WB

Host Rabbit

**Clonality** Polyclonal

Isotype IgG

Target Name TGFBR2 / TGF beta Receptor II

Species Human

Immunogen Synthetic peptide within aa. 60-140 of Human TGFBR2 / TGF beta Receptor II.

Conjugation Un-conjugated

Alternate Names FAA3; AAT3; TbetaR-II; TGF-beta receptor type-2; LDS2B; MFS2; TGF-beta type II receptor; EC 2.7.11.30;

TAAD2; TGFR-2; LDS2; Transforming growth factor-beta receptor type II; TGFbeta-RII; TGF-beta

receptor type II; RIIC; LDS1B

# **Application Instructions**

Application table	Application	Dilution
	IHC-P	1:100 - 1:300
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	65 kDa	

# **Properties**

Form Liquid

Purification Affinity purification with immunogen.

Buffer PBS, 0.02% Sodium azide, 50% Glycerol and 0.5% BSA.

Preservative 0.02% Sodium azide

Stabilizer 50% Glycerol and 0.5% BSA

Concentration 1 mg/ml

Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

#### Bioinformation

Gene Symbol

TGFBR2

Gene Full Name

transforming growth factor, beta receptor II (70/80kDa)

Background

This gene encodes a member of the Ser/Thr protein kinase family and the TGFB receptor subfamily. The encoded protein is a transmembrane protein that 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 this gene have been associated with Marfan Syndrome, Loeys-Deitz Aortic Aneurysm Syndrome, and the development of various types of tumors. Alternatively spliced transcript variants encoding different isoforms have been characterized. [provided by RefSeq, Jul 2008]

Function

Transmembrane serine/threonine kinase forming with the TGF-beta type I serine/threonine kinase receptor, TGFBR1, 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 TGFRB1 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. [UniProt]

Calculated Mw

65 kDa

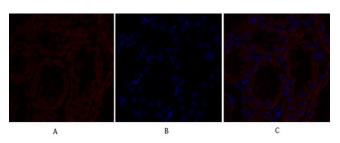
PTM

Phosphorylated on a Ser/Thr residue in the cytoplasmic domain. [UniProt]

**Cellular Localization** 

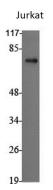
Cell membrane; Single-pass type I membrane protein. Membrane raft. [UniProt]

#### **Images**



# ARG66432 anti-TGFBR2 / TGF beta Receptor II antibody IHC-P image

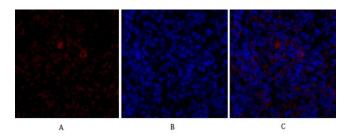
Immunohistochemistry: Paraffin-embedded Rat kidney tissue stained with ARG66432 anti-TGFBR2 / TGF beta Receptor II antibody (red) at 1:200, 4°C and overnight. Picture A: Target. Picture B: DAPI (blue). Picture C: Merge.



# ARG66432 anti-TGFBR2 / TGF beta Receptor II antibody WB image

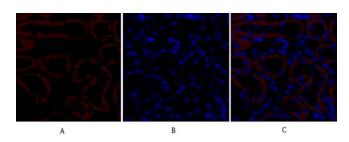
Western blot: Jurkat cell lysate stained with ARG66432 anti-TGFBR2 / TGF beta Receptor II antibody at 1:2000 dilution.

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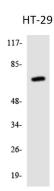
# ARG66432 anti-TGFBR2 / TGF beta Receptor II antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat spleen tissue stained with ARG66432 anti-TGFBR2 / TGF beta Receptor II antibody (red) at 1:200, 4°C and overnight. Picture A: Target. Picture B: DAPI (blue). Picture C: Merge.



#### ARG66432 anti-TGFBR2 / TGF beta Receptor II antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse kidney tissue stained with ARG66432 anti-TGFBR2 / TGF beta Receptor II antibody (red) at 1:200, 4°C and overnight. Picture A: Target. Picture B: DAPI (blue). Picture C: Merge.



# ARG66432 anti-TGFBR2 / TGF beta Receptor II antibody WB image

Western blot: HT-29 cell lysate stained with ARG66432 anti-TGFBR2  $\,$  / TGF beta Receptor II antibody.