Product Name: **TGF beta Receptor II (17K1) Rabbit Monoclonal Antibody**
Catalog #: **AMRe18849**
For research use only.

Summary

Description	Recombinant rabbit monoclonal antibody
Host	Rabbit
Application	ICC/IF,FC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Concentration	0.5mg/ml. The concentration of this product may be batch-dependent.
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Purification	Affinity purification

Application

Dilution Ratio	ICC/IF 1:500-1:1000,FC 1:20-1:50
Molecular Weight	65kDa

Antigen Information

Gene Name	TGFBR2
Alternative Names	TGF-beta receptor type-2; TGFR-2; TGFR2; TGF-beta type II receptor; TbetaR-II; TGFBR2;
Gene ID	7048.0
SwissProt ID	P37173
Immunogen	Recombinant protein of human TGF beta Receptor II

Background

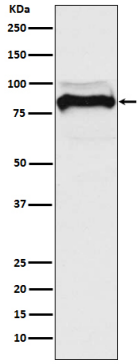
TGFβs mediate their activity by high affinity binding to the type II receptor (TGFβ RII) transmembrane protein with a

cytoplasmic serine-threonine kinase domain. For signaling growth inhibition and early gene responses the type II receptor requires both its kinase activity and association with a TGFβ-binding protein, designated the type I receptor. Two independent groups have recently described the cloning and sequence analysis of genes encoding TGFβ type I receptor proteins designated ALK-5 (TβR-1) and TSR-1, respectively. 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.

Research Area

Signal Transduction

Image Data



Western blot analysis of TGF beta Receptor II expression in A549 cell lysate.