

**Product Name: TGF beta Receptor II (17K1) Rabbit Monoclonal Antibody**  
**Catalog #: AMRe18849**

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## Summary

<b>Production Name</b>	TGF beta Receptor II (17K1) Rabbit Monoclonal Antibody
<b>Description</b>	Rabbit Monoclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	ICC/IF,FC
<b>Reactivity</b>	Human

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Monoclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type
<b>Buffer</b>	preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	TGFBR2
<b>Alternative Names</b>	TGF-beta receptor type-2; TGFR-2; TGFBR2; TGF-beta type II receptor; TbetaR-II; TGFBR2;
<b>Gene ID</b>	7048.0
<b>SwissProt ID</b>	P37173.

## Application

<b>Dilution Ratio</b>	ICC/IF 1:500-1:1000, FCM 1:20-1:50
<b>Molecular Weight</b>	65kDa

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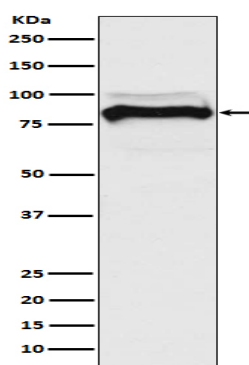


## Background

TGF $\beta$ s mediate their activity by high affinity binding to the type II receptor (TGF $\beta$  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 TGF $\beta$ -binding protein, designated the type I receptor. Two independent groups have recently described the cloning and sequence analysis of genes encoding TGF $\beta$  type I receptor proteins designated ALK-5 (T $\beta$ R-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 TGF $\beta$ 1, TGF $\beta$ 2 and TGF $\beta$ 3. Transduces the TGF $\beta$ 1, TGF $\beta$ 2 and TGF $\beta$ 3 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.

## Research Area

## Image Data



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

## Note

For research use only.