

Rabbit Anti-TGF beta R2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP52198

Specification

Rabbit Anti-TGF beta R2 Polyclonal Antibody - Product Information

Application WB, IHC-P
Primary Accession P37173
Reactivity Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Calculated MW 64568

Rabbit Anti-TGF beta R2 Polyclonal Antibody - Additional Information

Gene ID 7048

Other Names

AAT3; FAA3; LDS2; MFS2; RIIC; LDS1B; LDS2B; TAAD2; TGFR-2; TGFbeta-RII; TGF-beta receptor type-2; TGF-beta type II receptor; Transforming growth factor-beta receptor type II; TGF-beta receptor type II; TGFBR2

Dilution

WB~~1:100~1:500<br \> IHC-P~~1:100~1:500

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 $^{\circ}$ C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 $^{\circ}$ C.

Rabbit Anti-TGF beta R2 Polyclonal Antibody - Protein Information

Name TGFBR2

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 thus regulates 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 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





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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.

Cellular Location

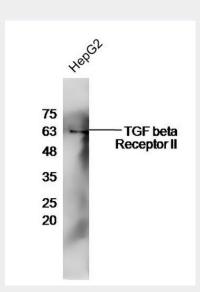
Cell membrane; Single-pass type I membrane protein. Membrane raft

Rabbit Anti-TGF beta R2 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

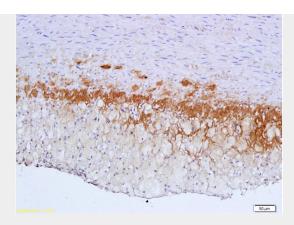
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Rabbit Anti-TGF beta R2 Polyclonal Antibody - Images



HepG2 cell lysates probed with Rabbit Anti-TGF beta R2 Polyclonal Antibody, Unconjugated (AP52198) at 1:300 overnight at 4° C. Followed by conjugation to secondary antibody at 1:500 for 90 min at 37°C.





Formalin-fixed and paraffin embedded: rabbit carotid artery labeled with Anti-TGF-beta-R2/TGFBR2 Polyclonal Antibody (AP52198), Unconjugated 1:600 followed by conjugation to the secondary antibody and DAB staining

Rabbit Anti-TGF beta R2 Polyclonal Antibody - Background

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.