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# Anti-TGFBR2 Antibody

Catalog # AP51560

## Product Information

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| **Application** | WB, IHC, IF/IC |
| **Primary Accession** | P37173 |
| **Reactivity** | Human, Mk |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 64568 |

## Additional Information

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| **Gene ID** | 7048 |
| **Other Names** | TGF-beta receptor type-2; TGFR-2; TGF-beta type II receptor; Transforming growth factor-beta receptor type II; TGF-beta receptor type II; TbetaR-II |
| **Target/Specificity** | KLH-conjugated synthetic peptide encompassing a sequence within the center region of human TGFBR2. The exact sequence is proprietary. |
| **Dilution** | WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A |
| **Format** | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. |
| **Storage** | Store at -20 °C.Stable for 12 months from date of receipt |

## Protein Information

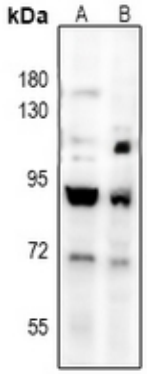
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| **Name** | TGFBR2 |
| **Function** | Transmembrane serine/threonine kinase forming with the TGF- beta type I serine/threonine kinase receptor, TGFBR1, the non- promiscuous receptor for the TGF-beta cytokines TGFB1, TGFB2 and TGFB3. Transduces the 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 the nucleus where it modulates the transcription of the TGF-beta-regulated genes. This constitutes the canonical SMAD-dependent TGF-beta signaling |

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| | cascade. Also involved in non-canonical, SMAD-independent TGF-beta signaling pathways. |
| **Cellular Location** | Cell membrane; Single-pass type I membrane protein. Membrane raft |

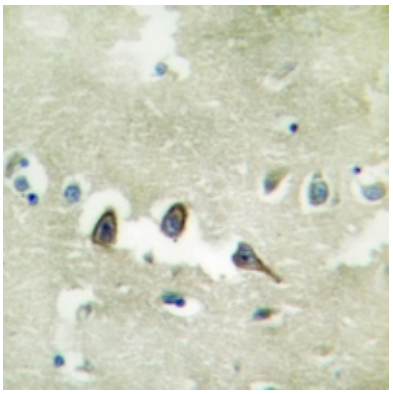
## References


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Nikawa J.,et al.Gene 149:367-372(1994).
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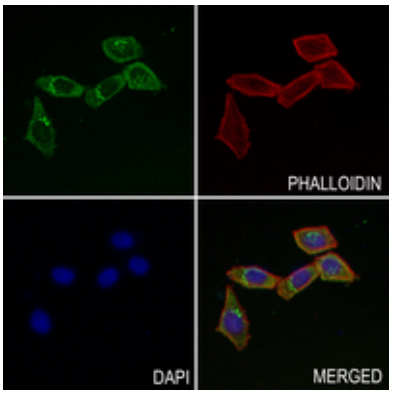

## Images




Western blot analysis of TGFBR2 expression in SGC7901 (A), HEK293T (B) whole cell lysates. (Predicted band size: 64 kD; Observed band size: 70; 90 kD)



Immunohistochemical analysis of TGFBR2 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.




Immunofluorescent analysis of TGFBR2 staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).


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