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Anti-TGFBR2 (Phospho-S225) Antibody

Catalog # AP51559

Product Information

Application	WB, IHC
Primary Accession	P37173
Reactivity	Human, Mouse, Rat, Rabbit, Pig
Host	Rabbit
Clonality	Polyclonal
Calculated MW	64568

Additional Information

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 phosphopeptide corresponding to residues surrounding S225 of human TGFBR2 protein. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500
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

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

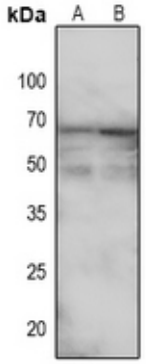
genes. This constitutes the canonical SMAD-dependent TGF-beta signaling cascade. Also involved in non-canonical, SMAD-independent TGF-beta signaling pathways.

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

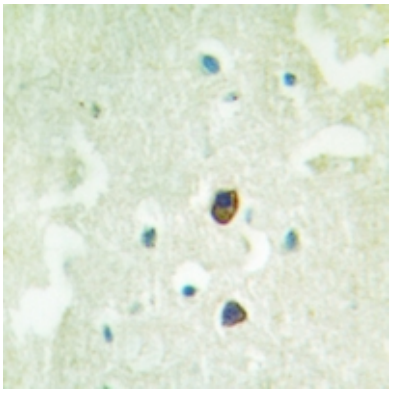
References

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Nikawa J.,et al.Gene 149:367-372(1994).
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Lu S.-L.,et al.Cancer Res. 56:4595-4598(1996).

Images



Western blot analysis of TGFBR2 (Phospho-S225) expression in mouse brain (A), rat brain (B) whole cell lysates. (Predicted band size: 64 kD; Observed band size: 64 kD)



Immunohistochemical analysis of TGFBR2 (Phospho-S225) 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.