

TGF β RI (Phospho Ser165) Rabbit pAb

CatalogNo: YP1191 **Orthogonal Validated** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, ELISA

MW

- 56kD (Calculated)

Isotype

- IgG

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-2000

IF 1:50-300

IHC 1:50-300

ELISA 1:5000-20000

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen The antiserum was produced against synthesized peptide derived from human TGF beta Receptor I around the phosphorylation site of Ser165. AA range:131-180

Specificity

Phospho-TGFβ RI (S165) Polyclonal Antibody detects endogenous levels of TGFβ RI protein only when phosphorylated at S165. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):DPsLD

| Target Information

Gene name TGFBR1 ALK5 SKR4

Protein Name TGF-beta receptor type-1

Organism	Gene ID	UniProt ID
Human	7046;	P36897;
Mouse	21812;	Q64729;
Rat		P80204;

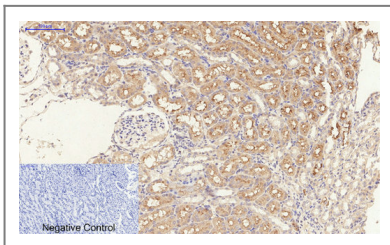
Cellular Localization Cell membrane ; Single-pass type I membrane protein . Cell junction, tight junction . Cell surface . Membrane raft .

Tissue specificity Found in all tissues examined, most abundant in placenta and least abundant in brain and heart. Expressed in a variety of cancer cell lines (PubMed:25893292).

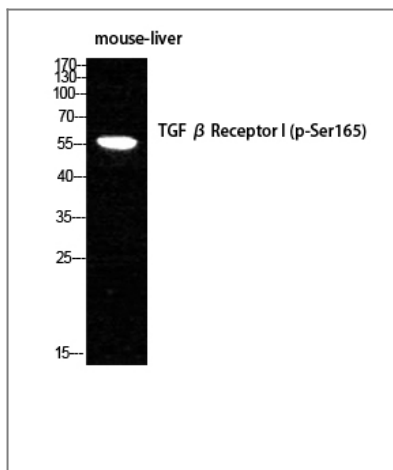
Function

Catalytic activity:ATP + [receptor-protein] = ADP + [receptor-protein] phosphate.,cofactor:Magnesium or manganese.,Disease:Defects in TGFBR1 are the cause of aortic aneurysm familial thoracic type 5 (AAT5) [MIM:608967]. Aneurysms and dissections of the aorta usually result from degenerative changes in the aortic wall. Thoracic aortic aneurysms and dissections are primarily associated with a characteristic histologic appearance known as 'medial necrosis' in which there is degeneration and fragmentation of elastic fibers, loss of smooth muscle cells, and an accumulation of basophilic ground substance.,Disease:Defects in TGFBR1 are the cause of Loeys-Dietz syndrome type 1A (LDS1A) [MIM:609192]; also known as Furlong syndrome or Loeys-Dietz aortic aneurysm syndrome (LDAS). LDS1 is an aortic aneurysm syndrome with widespread systemic involvement. The disorder is characterized by arterial tortuosity and aneurysms, craniosynostosis, hypertelorism, and bifid uvula or cleft palate. Other findings include exotropia, micrognathia and retrognathia, structural brain abnormalities, intellectual deficit, congenital heart disease, translucent skin, joint hyperlaxity and aneurysm with dissection throughout the arterial tree.,Disease:Defects in TGFBR1 are the cause of Loeys-Dietz syndrome type 2A (LDS2A) [MIM:608967]. LDS2 is an aortic aneurysm syndrome with widespread systemic involvement. Physical findings include prominent joint laxity, easy bruising, wide and atrophic scars, velvety and translucent skin with easily visible veins, spontaneous rupture of the spleen or bowel, diffuse arterial aneurysms and dissections, and catastrophic complications of pregnancy, including rupture of the gravid uterus and the arteries, either during pregnancy or in the immediate postpartum period. LDS2 is characterized by the absence of craniofacial abnormalities with the exception of bifid uvula that can be present in some patients.,Function:On ligand binding, forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators. Receptor for TGF-beta.,PTM:Phosphorylated at basal levels in the absence of ligand binding. Activated by multiple phosphorylation, mainly in the GS region.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGFBR receptor subfamily.,similarity:Contains 1 GS domain.,similarity:Contains 1 protein kinase domain.,subunit:Interacts with CD109. The unphosphorylated protein interacts with FKBP1A and is stabilized the inactive conformation. Phosphorylation of the GS region abrogates FKBP1A binding. Interacts with SMAD2 when phosphorylated on several residues in the GS region.,tissue specificity:Found in all tissues examined, most abundant in placenta and least abundant in brain and heart.,

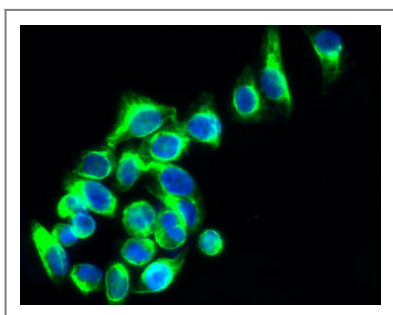
Validation Data



Immunohistochemical analysis of paraffin-embedded Rat-kidney tissue. 1,TGFβ RI (phospho Ser165) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Western Blot analysis of MOUSE-LIVER cells using Phospho-TGF β RI (S165) Polyclonal Antibody diluted at 1:1000



Immunofluorescence analysis of HepG2 cells, Antibody diluted at 1:50. The picture on the right is blocked with the synthesized peptide.

Contact information

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TGF β RI (Phospho Ser165) Rabbit pAb

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