



Rabbit Anti-Activin Receptor Type IIB antibody

SL12417R

Product Name:	Activin Receptor Type IIB
Chinese Name:	激活素受体2B抗体
Alias:	Activin Receptor Type IIB; ACTR-IIB; Activin A receptor type IIB; Activin receptor type 2B; Activin receptor type IIB; Activin receptor type-2B; ActR IIB; ACTR-IIB; ActRIIB; ACVR 2B; ACVR2B; AVR2B_HUMAN; HTX4; MGC116908.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	56kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ACVR2B/ACTR-IIB:45-150/512<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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 °C.
PubMed:	PubMed
Product Detail:	Members of the transforming growth factor b superfamily bind to a pair of transmembrane proteins, known as receptor types I and II, which contain serine/threonine kinases and associate to form a signaling complex (1). Activin has been shown to bind a heteromeric noncovalent complex, which consists of a type I receptor,

ACTR-IA (also designated ACVRI and ALK-2) or ACTR-IB (also designated ALK-4 and SKR2), and a type II receptor, ACTR-IIA (also designated ACVR2A) or ACTR-IIB (also designated ACVR2B) (1-6). Both receptor types are highly expressed in brain (5). The activin receptor family members are thought to mediate distinct effects on gene expression, cell differentiation, and morphogenesis in a dose dependent fashion (5,6).

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 activin A, activin B and inhibin A.

Subunit:

Forms an activin receptor complex with activin type II receptors such as ACVR1B. Interacts with VPS39.

Subcellular Location:

Cell membrane; Single-pass type I membrane protein.

Post-translational modifications:

Phosphorylated. Constitutive phosphorylation is in part catalyzed by its own kinase activity.

DISEASE:

Defects in ACVR2B are the cause of visceral heterotaxy autosomal type 4 (HTX4) [MIM:613751]. A form of visceral heterotaxy, a complex disorder due to disruption of the normal left-right asymmetry of the thoracoabdominal organs. It results in an abnormal arrangement of visceral organs, and a wide variety of congenital defects. Clinical features of visceral heterotaxy type 4 include dextrocardia, right aortic arch and a right-sided spleen, anomalies of the inferior and the superior vena cava, atrial ventricular canal defect with dextro-transposed great arteries, pulmonary stenosis, polysplenia and midline liver.

Similarity:

Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGFB receptor subfamily. Contains 1 protein kinase domain.

SWISS:

Q13705

Gene ID:

93

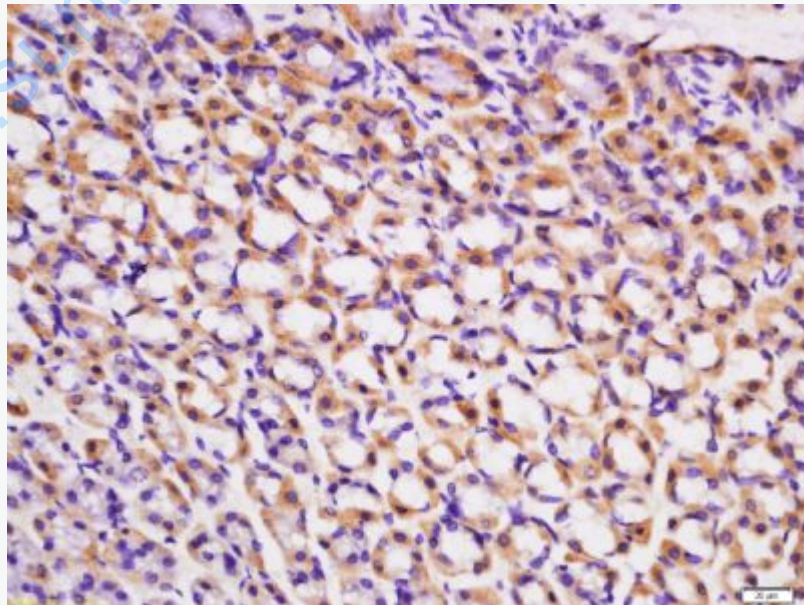
Database links:

[Entrez Gene: 93](#) Human
[Entrez Gene: 11481](#) Mouse
[Entrez Gene: 25366](#) Rat
[Omim: 602730](#) Human
[SwissProt: Q13705](#) Human
[SwissProt: P27040](#) Mouse
[SwissProt: P38445](#) Rat
[Unigene: 174273](#) Human
[Unigene: 390239](#) Mouse
[Unigene: 24240](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Tissue/cell: rat stomach tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-Activin Receptor Type IIB Polyclonal Antibody, Unconjugated(SL12417R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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