



Rabbit Anti-Activin receptor type-1 antibody

SL12415R

Product Name:	Activin receptor type-1
Chinese Name:	激活素受体1A抗体
Alias:	Activin Receptor Type IA; Activin A receptor type I; Activin A receptor type II like kinase 2; Activin receptor type I; Activin receptor type-1; Activin receptor-like kinase 2; ACTR1; ACTR 1; ACTR-1; ACTR-I; ACTRI; ACVR 1; ACVR1; ACVR1_HUMAN; ACVR1A; ACVRLK 2; ACVRLK2; ALK 2; ALK-2; ALK2; FOP; Hydroxyalkyl protein kinase; Serine/threonine protein kinase receptor R1; Serine/threonine-protein kinase receptor R1; SKR 1; SKR1; TGF-B superfamily receptor type I; TGFB superfamily receptor type I; TSR-I; TSRI; TSRI.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Sheep,
Applications:	WB=1:500-2000ELISA=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:	55kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human SKR1/ACTR1:65-160/509<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

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 morpho- genesis 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. May be involved for left-right pattern formation during embryogenesis.

Subunit:

Interacts with FKBP1A. Interacts with FCHO1.

Subcellular Location:

Membrane; Single-pass type I membrane protein.

Tissue Specificity:

Expressed in normal parenchymal cells, endothelial cells, fibroblasts and tumor-derived epithelial cells.

DISEASE:

Defects in ACVR1 are a cause of fibrodysplasia ossificans progressiva (FOP) [MIM:135100]. FOP is a rare autosomal dominant disorder of skeletal malformations and progressive extraskelatal ossification. Heterotopic ossification in FOP begins in childhood and can be induced by trauma or may occur without warning. Bone formation is episodic and progressive, leading to extra-articular ankylosis of all major joints of the axial and appendicular skeleton, rendering movement impossible.

Similarity:

Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family.

TGFB receptor subfamily.

Contains 1 GS domain.

Contains 1 protein kinase domain.

SWISS:

Q04771

Gene ID:

90

Product Detail:

Database links:

[Entrez Gene: 90](#)Human

[Entrez Gene: 11477](#)Mouse

[Entrez Gene: 79558](#)Rat

[Omim: 102576](#)Human

[SwissProt: Q04771](#)Human

[SwissProt: P37172](#)Mouse

[SwissProt: P80201](#)Rat

[Unigene: 470316](#)Human

[Unigene: 689](#)Mouse

[Unigene: 87899](#)Rat

Important Note:

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

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