

Bioactive

ACVR1 (Q207D) (Human) Recombinant Protein

Catalog # P6465 Size 5 ug

Applications

Result of activity analysis

Result of activity analysis

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Specification

Product Description	Human ACVR1 (NP_001096.1, 145 a.a. - 509 a.a.) Q207D mutant partial recombinant protein with GST-tag at N-terminal using baculovirus expression system.
Host	Viruses
Form	Liquid
Preparation Method	Baculovirus expression system.
Purification	Glutathione sepharose chromatography.
Purity	0.9399999999999979
Activity	The activity was measured by off-chip mobility shift assay (MSA). The enzyme was incubated with fluorescence-labeled substrate and Mn/ATP. The phosphorylated and unphosphorylated substrates were separated and detected by MSA device. Substrate: TopoIIa peptide, ATP: 100 uM.
Quality Control Testing	The purity was assessed by SDS-PAGE/CBB staining.
Storage Buffer	50 mM Tris-HCl, 150 mM NaCl, 0.05% Brij35, 1 mM DTT, 10% glycerol, pH7.5
Storage Instruction	Stored at -80°C. Aliquot to avoid repeated freezing and thawing.

Note	Result of activity analysis
	Result of activity analysis

Applications

- Functional Study

Gene Info — ACVR1

Entrez GeneID	90
Protein Accession#	NP_001096.1
Gene Name	ACVR1
Gene Alias	ACTRI, ACVR1A, ACVRLK2, ALK2, FOP, SKR1, TSRI
Gene Description	activin A receptor, type I
Omim ID	102576 135100
Gene Ontology	Hyperlink
Gene Summary	Activins are dimeric growth and differentiation factors which belong to the transforming growth factor-beta (TGF-beta) superfamily of structurally related signaling proteins. Activins signal through a heteromeric complex of receptor serine kinases which include at least two type I (I and IB) and two type II (II and IIB) receptors. These receptors are all transmembrane proteins, composed of a ligand-binding extracellular domain with cysteine-rich region, a transmembrane domain, and a cytoplasmic domain with predicted serine/threonine specificity. Type I receptors are essential for signaling; and type II receptors are required for binding ligands and for expression of type I receptors. Type I and II receptors form a stable complex after ligand binding, resulting in phosphorylation of type I receptors by type II receptors. This gene encodes activin A type I receptor which signals a particular transcriptional response in concert with activin type II receptors. Mutations in this gene are associated with fibrodysplasia ossificans progressive. [provided by RefSeq]
Other Designations	TGF-B superfamily receptor type II activin A receptor, type II-like kinase 2 activin A type I receptor hydroxyalkyl-protein kinase serine/threonine-protein kinase receptor R1

Pathway

- [Cytokine-cytokine receptor interaction](#)
- [TGF-beta signaling pathway](#)

Disease

- [Abortion](#)
- [Breast Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Infertility](#)
- [Intracranial Aneurysm](#)
- [Narcolepsy](#)
- [Neoplasms](#)
- [Obesity](#)
- [Ovarian cancer](#)
- [Ovarian Failure](#)
- [Ovarian Neoplasms](#)
- [Polycystic Ovary Syndrome](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Puberty](#)
- [Stroke](#)
- [Thrombophilia](#)
- [Tobacco Use Disorder](#)