

ACVR1C Antibody

ACVR1C: Activin A receptor type IC, Activin receptor-like kinase 7, Activin receptor type IC precursor, ACTR-IC, ACVRLK7, ALK7, ALK-7

CATALOG NO.: 4795

BACKGROUND:

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 and two type II receptors. ACVR1C, also known as ALK7, is a type I activin receptor and plays a role in cell differentiation, growth arrest and apoptosis. ACVR1C can mediate signaling by ligands such as Nodal, GDF-1/3, activin B and activin AB, all of which can also signal through the ubiquitous activin type I receptor ACVR1B (also known as ALK4) (1-3). ACVR1C is a novel marker specifically expressed during the late phase of adipocyte differentiation (3,4). ACVR1C is dispensable for mouse embryogenesis, which suggests alternative functions for this receptor in postnatal development and tissue homeostasis (5). ACVR1C plays an important role in regulating the functional plasticity of pancreatic islets, negatively affecting β -cell function by mediating the effects of activin B on Ca^{2+} signaling (6). This antibody is predicted to have no cross-reactivity to ACVR1 or ACVR1B.

SOURCE:

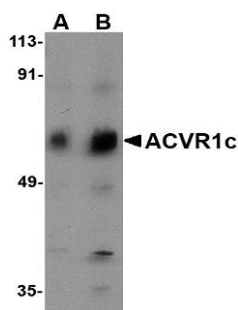
Rabbit polyclonal ACVR1C antibody was raised against a 15 amino acid peptide near the amino terminus of the human ACVR1C (GenBank accession no. NP_001096).

APPLICATION:

ACVR1C antibody can be used for detection of ACVR1C by Western blot at 1 μ g/ml. (Optimal dilution should be determined by user.) Human placenta tissue lysate can be used as positive control. ACVR1C antibody is human, mouse and rat reactive. **This product is for research use only.**

STORAGE:

ACVR1C antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of ACVR1C in human placenta tissue lysate with ACVR1C antibody at (A) 1 and (B) 2 μ g/ml.

RELATED PRODUCTS:

Blocking peptide, Catalog No. **4795P**.
Human Placenta Tissue Lysate, Catalog No. **1309**.
ACVR1 Antibody, Catalog No. **4791**.
ACVR1B Antibody, Catalog No. **4793**.
GDF6 Antibody, Catalog No. **4691**.

REFERENCES:

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4. Kogame M, Matsuo S, Nakatani M, et al. ALK7 is a novel marker for adipocyte differentiation. *J. Med. Invest.* 2006; 53:238-45.
5. Jornvall H, Reissmann E, Andersson O, et al. ALK7, a receptor for nodal, is dispensable for embryogenesis and left-right patterning in the mouse. *Mol. Cell Biol.* 2004; 24:9383-9.
6. Bertolino P, Holmberg R, Reissmann E, et al. Activin B receptor ALK7 is a negative regulator of pancreatic beta-cell function. *Proc. Natl. Acad. Sci. USA.* 2008; 105:7246-51. (08-01D)