



# ACTR-IC Polyclonal Antibody

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| <b>Catalog No</b>                  | YP-Ab-13134                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Isotype</b>                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Reactivity</b>                  | Human;Mouse;Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Applications</b>                | IHC;IF;ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Gene Name</b>                   | ACVR1C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>                   | The antiserum was produced against synthesized peptide derived from human ACTR-1C. AA range:201-250                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Specificity</b>                 | ACTR-IC Polyclonal Antibody detects endogenous levels of ACTR-IC protein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Formulation</b>                 | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>                      | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Purification</b>                | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Dilution</b>                    | Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Concentration</b>               | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Purity</b>                      | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Storage Stability</b>           | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Synonyms</b>                    | ALK7;ACVRLK7;ACVR1C;ACTR-IC;Activin receptor type-1C;Activin receptor type IC;Activin receptor-like kinase 7;ALK-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Observed Band</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Calculated Molecular Weight</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Cell Pathway</b>                | Membrane ; Single-pass type I membrane protein .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Tissue Specificity</b>          | Present in pancreas, heart, colon, small intestine, ovary and the hippocampus, medulla oblongata and putamen of the brain. Isoform 1, isoform 2, isoform 3 and isoform 4 are all expressed in the placenta throughout pregnancy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Function</b>                    | catalytic activity:ATP + [receptor-protein] = ADP + [receptor-protein] phosphate., cofactor:Magnesium or manganese.,function:Serine/threonine protein kinase which forms a receptor complex on ligand binding. The receptor complex consisting of 2 type II and 2 type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators, SMAD2 and SMAD3. Receptor for activin AB, activin B and NODAL. Plays a role in cell differentiation, growth arrest and apoptosis.,similarity:Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGFB receptor |



subfamily.,similarity:Contains 1 GS domain.,similarity:Contains 1 protein kinase domain.,subunit:Binds the type 2 receptor protein ACVR2A.,tissue specificity:Present in pancreas, heart, colon, small intestine, ovary and

#### Background

ACVR1C is a type I receptor for the TGFB (see MIM 190180) family of signaling molecules. Upon ligand binding, type I receptors phosphorylate cytoplasmic SMAD transcription factors, which then translocate to the nucleus and interact directly with DNA or in complex with other transcription factors (Bondestam et al., 2001 [PubMed 12063393]).[supplied by OMIM, Mar 2008],

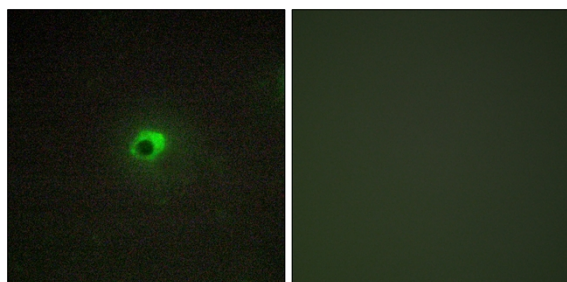
#### matters needing attention

Avoid repeated freezing and thawing!

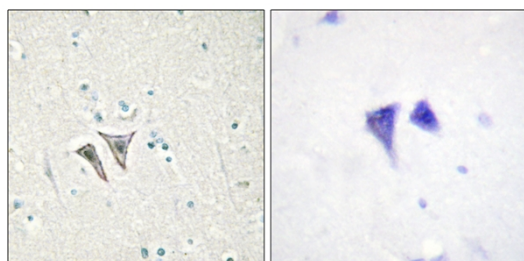
#### Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

### Products Images



Immunofluorescence analysis of COS7 cells, using ACTR-1C Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using ACTR-1C Antibody. The picture on the right is blocked with the synthesized peptide.