

## Recombinant Rat Activin A Receptor, Type IC

Cat. No. Acvr1c-502R Lot. No. (See product label)

### SPECIFICATION

<b>Species</b>	Rat
<b>Source</b>	Mammalian Cells
<b>Description</b>	<p>Activin receptor-like kinase (ALK) 7 is a type I serine/threonine kinase receptor of the transforming growth factor (TGF)-beta family of proteins. ALK7 is most abundantly expressed in human brain, pancreas and colon. It negatively regulates glucose-stimulated insulin release in <math>\beta</math>-cells and plays an important role in regulating the functional plasticity of pancreatic islets. ALK7 also has an important role in the regulation of body fat deposition. These has implications for the development of treatments against diabetes and obesity.</p>
<b>Molecular Weight</b>	The predicted molecular weight of Recombinant Rat ALK-7 is Mr 35.7 kDa. However, the actual molecular weight as observed by migration on SDS Page is Mr 47-55 kDa.
<b>State Of Matter</b>	Lyophilized.
<b>Purity</b>	>90% by SDS Page and analyzed by silver stain.
<b>Endotoxin</b>	<1.0 EU/g as determined by the LAL method.
<b>Storage And Stability</b>	<p>The lyophilized protein should be stored desiccated at -20°C. The reconstituted protein can be stored for at least one week at 4°C. For long-term storage of the reconstituted protein, aliquot into working volumes and store at -20°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles.</p>

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## GENE INFORMATION

<b>Gene Name</b>	Acvr1c activin A receptor, type IC [ <i>Rattus norvegicus</i> ]
<b>Synonyms</b>	Acvr1c; activin A receptor, type IC; ALK7; Alk-7; habrec1; TGF-beta type 1 receptor; activin receptor-like kinase 7; EC 2.7.11.30
<b>Gene ID</b>	245921
<b>mRNA Refseq</b>	NM_139090
<b>Protein Refseq</b>	NP_620790
<b>UniProt ID</b>	P70539
<b>Chromosome Location</b>	3q21
<b>Pathway</b>	Cytokine-cytokine receptor interaction; Adherens junction; Chronic myeloid leukemia; Endocytosis; Colorectal cancer; MAPK signaling pathway; Pancreatic cancer; Pathways in cancer; TGF-beta signaling pathway
<b>Function</b>	ATP binding; SMAD binding activin binding; manganese ion binding; protein serine/threonine kinase activity; receptor activity; transferase activity; transforming growth factor beta receptor activity

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