

## Product datasheet for TP512153

### Acvr2b (NM\_007397) Mouse Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse activin receptor IIB (Acvr2b), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR212153 representing NM_007397 <b>Red</b> =Cloning site <b>Green</b> =Tags(s)  MTAPWAALALLWGSLCAGSGRGEAETRECIYYNANWELERTNQSGLERCEGEQDKRLHCYASWRNSSGTI ELVKKGCWLDDFNCYDRQECVATEENPQVVFCCCEGNFCNERFTHLPEPGGPEVTYEPPTAPTLLTVLA YSLLPIGGLSLIVLLAFWMYRHRKPPYGHVDIHEVRQCQRWAGRRDGCADSFKPLPFQDPGPPPSPLVG LKPLQLLEIKARGRFGCVWKAQLMNDFAVKIFPLQDKQSWQSEREIFSTPGMKHENLLQFIAAEKRGSN LEVELWLITAFHDKGSLTDYLGKNIITWNECHVAETMSRGLSYLHEDVPWCRGEGHKPSIAHRDFKSKN VLLKSDLTAVLADFGLA VRFE PGKPPGDTHGQVGTRRYMAPEVLEGAINFQRDAFLRIDMYAMGLVLWEL VSRCKAADGPVDEYMLPFEEEIGQHPSLEELQEVVHHKMRPTIKDHWLKHPLGLAQLCVTIEECWDHDAE ARLSAGCVEERVSLIRRSVNGTTSDCLVSLVTSVTNVDLLPKESSI  <b>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</b>
Tag:	C-MYC/DDK
Predicted MW:	61 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<u><a href="#">NP_031423</a></u>


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<b>Locus ID:</b>	11481
<b>UniProt ID:</b>	<u>P27040</u>
<b>RefSeq Size:</b>	1710
<b>Cytogenetics:</b>	9 F3
<b>RefSeq ORF:</b>	1608
<b>Synonyms:</b>	4930516B21Rik; ActRIIB
<b>Summary:</b>	<p>Transmembrane serine/threonine kinase activin type-2 receptor forming an activin receptor complex with activin type-1 serine/threonine kinase receptors (ACVR1, ACVR1B or ACVR1c). Transduces the activin signal from the cell surface to the cytoplasm and is thus regulating many physiological and pathological processes including neuronal differentiation and neuronal survival, hair follicle development and cycling, FSH production by the pituitary gland, wound healing, extracellular matrix production, immunosuppression and carcinogenesis. Activin is also thought to have a paracrine or autocrine role in follicular development in the ovary. Within the receptor complex, the type-2 receptors act as a primary activin receptors (binds activin-A/INHBA, activin-B/INHBB as well as inhibin-A/INHBA-INHBA). The type-1 receptors like ACVR1B act as downstream transducers of activin signals. Activin binds to type-2 receptor at the plasma membrane and activates its serine-threonine kinase. The activated receptor type-2 then phosphorylates and activates the type-1 receptor. Once activated, the type-1 receptor binds and phosphorylates the SMAD proteins SMAD2 and SMAD3, on serine residues of the C-terminal tail. Soon after their association with the activin receptor and subsequent phosphorylation, SMAD2 and SMAD3 are released into the cytoplasm where they interact with the common partner SMAD4. This SMAD complex translocates into the nucleus where it mediates activin-induced transcription. Inhibitory SMAD7, which is recruited to ACVR1B through FKBP1A, can prevent the association of SMAD2 and SMAD3 with the activin receptor complex, thereby blocking the activin signal. Activin signal transduction is also antagonized by the binding to the receptor of inhibin-B via the IGSF1 inhibin coreceptor (By similarity).[UniProtKB/Swiss-Prot Function]</p>