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Product datasheet

Recombinant Human Activin Receptor Type IA protein (Fc Chimera) ab83922

3 Images

Description

Product name	Recombinant Human Activin Receptor Type IA protein (Fc Chimera)
Purity	> 95 % SDS-PAGE.
Expression system	HEK 293 cells
Accession	Q04771
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	Theoretical Sequence MEDEKPKVNPKLYMCVCEGLSCGNEDHCEGQQCFSSLS INDGFHVYQKGC FQVYEQGKMTCKTPPSPGQAVECCQGDWCNRNITAQLP TKGKSFPGTQNF HLEGSSNTKVDKKVEPKSCDKTHTCPPCPAPELLGGPSV FLFPPKPKDTL MISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTK PREEQYNSTYR VVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKG QPREPQVYTL PPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENN YKTTPPVLDSD GSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKS LSLSPGK
Amino acids	1 to 123
Additional sequence information	Fused with the Fc region of Human IgG1 at the C-terminus.

Specifications

Our **Abpromise guarantee** covers the use of **ab83922** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Lyophilized

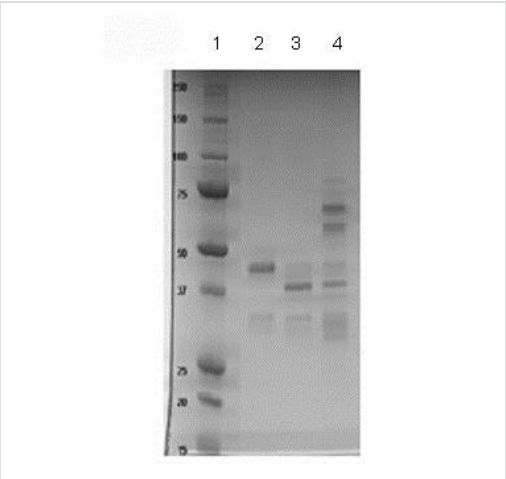
Preparation and Storage

Stability and Storage	Shipped at 4°C. After reconstitution store at -20ºC. Avoid freeze / thaw cycles. Constituents: 10% Trehalose, 1% Human serum albumin
Reconstitution	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial. Following reconstitution short-term storage at 4°C is recommended, with longer-term storage in aliquots at -18 to -20°C. Repeated freeze thawing is not recommended.

General Info

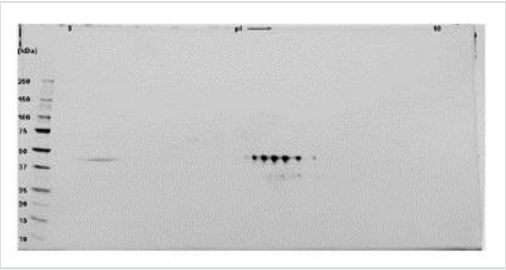
Function	On ligand binding, forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators. Receptor for activin. May be involved for left-right pattern formation during embryogenesis.
Tissue specificity	Expressed in normal parenchymal cells, endothelial cells, fibroblasts and tumor-derived epithelial cells.
Involvement in disease	Defects in ACVR1 are a cause of fibrodysplasia ossificans progressiva (FOP) [MIM:135100]. FOP is a rare autosomal dominant disorder of skeletal malformations and progressive extraskeletal ossification. Heterotopic ossification in FOP begins in childhood and can be induced by trauma or may occur without warning. Bone formation is episodic and progressive, leading to extra-articular ankylosis of all major joints of the axial and appendicular skeleton, rendering movement impossible.
Sequence similarities	Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGFB receptor subfamily. Contains 1 GS domain. Contains 1 protein kinase domain.
Cellular localization	Membrane.

Images



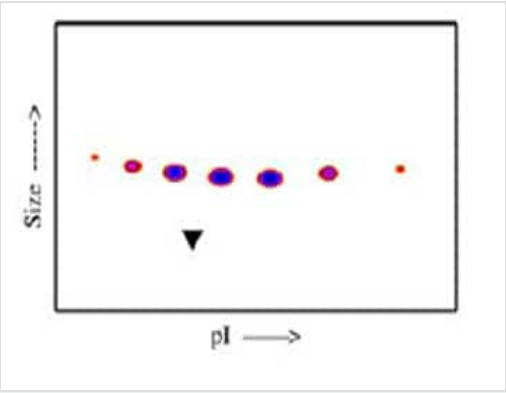
SDS-PAGE - Recombinant Human Activin Receptor Type IA protein (Fc Chimera) (ab83922)

Lane 1 – MW markers; Lane 2 – ab83922; Lane 3 – ab83922 treated with PNGase F to remove potential N-linked glycans; Lane 4 – ab83922 treated with a glycosidase cocktail to remove potential N- and O-linked glycans. Approximately 5 µg of protein was loaded per lane; Gel was stained using Coomassie.
Drop in MW after treatment with PNGase F indicates the presence of N-linked glycans. Additional bands in lane 3 and lane 4 are glycosidase enzymes.



SDS-PAGE - Recombinant Human Activin Receptor Type IA protein (Fc Chimera) (ab83922)

A sample of ab83922 without carrier protein was reduced and alkylated and focused on a 3-10 IPG strip then run on a 4-20% Tris-HCl 2D gel. Approximately 40 µg of protein was loaded; Gel was stained using Deep Purple™. The spot train indicates the presence of multiple glycoforms of ab83922. Spots within the spot train were cut from the gel and identified as Activin Receptor Type IA (Fc Chimera) by protein mass fingerprinting.



Functional Studies - Recombinant Human Activin Receptor Type IA protein (Fc Chimera) (ab83922)

Post-translational modifications result in protein heterogeneity. The densitometry scan demonstrates the purified human cell expressed protein exists in multiple glycoforms, which differ according to their level of post-translational modification.
The triangle indicates theoretical pI and MW of the protein.

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