Datasheet for ABIN4949124

ACVA Protein (AA 21-426) (His tag)

1 Image

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Overview

Quantity:	100 µg
Target:	ACVA
Protein Characteristics:	AA 21-426
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This ACVA protein is labelled with His tag.
Application:	Functional Studies (Func)

Product Details

Sequence:	AA 21-426
Characteristics:	This protein carries a polyhistidine tag at the N-terminus. The protein has a calculated MW of 13 kDa (mature) & 32 kDa (pro). As a result of glycosylation and Interchain disulfide bond, the protein migrates as 15 kDa (mature) and 43-48 kDa (pro) under reducing (R) condition, and 27 kDa (mature), 43-48 kDa (pro) and 60 kDa (pro & mature) under non-reducing (NR) condition (SDS-PAGE).
Purity:	>95 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

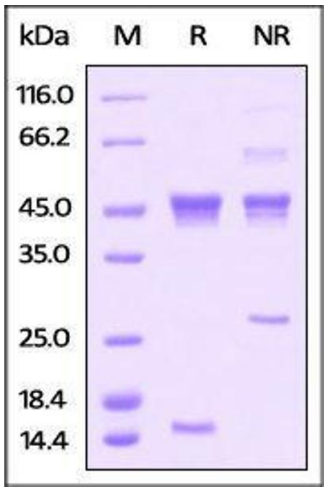
Target:	ACVA
Alternative Name:	Activin A (ACVA Products)
Background:	Activin and inhibin are two closely related protein complexes that have almost directly opposite biological effects. Activin enhances FSH biosynthesis and secretion, and participates in the regulation of the menstrual cycle. Many other functions have been found to be exerted by activin, including roles in cell proliferation, differentiation, apoptosis, metabolism, homeostasis, immune response, wound repair, and endocrine function. Conversely inhibin down regulates FSH synthesis and inhibits FSH secretion. Activins are nonglycosylated homodimers or heterodimers of various β subunits (βA, βB, βC, and βE in mammals), while Inhibins are heterodimers of a unique α subunit and one of the β subunits. Activin A is a widely expressed homodimer of two βA chains. The βA subunit can also heterodimerize with a βB or βC subunit to form Activin AB and Activin AC, respectively. The 14 kDa mature human βA chain shares 100 % amino acid sequence identity with bovine, feline, mouse, porcine, and rat βA. Activin is produced in the gonads, pituitary gland, placenta, and other organs. The bioactivity of Activin A is regulated by a variety of mechanisms. In the ovarian follicle, activin increases FSH binding and FSH-induced aromatization, Activin is strongly expressed in wounded skin, and overexpression of activin in epidermis of transgenic mice improves wound healing and enhances scar formation, Activin also regulates the morphogenesis of branching organs such as the prostate, lung, and especially kidney. Activin A increased the expression level of type-I collagen suggesting that activin A acts as a potent activator of fibroblasts, Lack of activin during development results in neural developmental defects.
Molecular Weight:	13.0 kDa (mature) and 32.0 kDa (pro)
Pathways:	Hormone Transport, Peptide Hormone Metabolism

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C



SDS-PAGE

Image 1. Human Latent Activin A, His Tag on SDS-PAGE under reducing (R) and no-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.