Recombinant Full Length Human ACTN1 Protein, C-Flag-tagged

Cat. No. ACTN1-1082HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human ACTN1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	Alpha actinins belong to the spectrin gene superfamily which represents a diverse group of cytoskeletal proteins, including the alpha and beta spectrins and dystrophins. Alpha actinin is an actin-binding protein with multiple roles in different cell types. In nonmuscle cells, the cytoskeletal isoform is found along microfilament bundles and adherens-type junctions, where it is involved in binding actin to the membrane. In contrast, skeletal, cardiac, and smooth muscle isoforms are localized to the Z-disc and analogous dense bodies, where they help anchor the myofibrillar actin filaments. This gene encodes a nonmuscle, cytoskeletal, alpha actinin isoform and maps to the same site as the structurally similar erythroid beta spectrin gene. Three transcript variants encoding different isoforms have been found for this gene.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	102.9 kDa
AA Sequence	MDHYDSQQTNDYMQPEEDWDRDLLLDPAWEKQQRKTFTAWCNSHLRKAGTQIENI EEDFRDGLKLMLLLE VISGERLAKPERGKMRVHKISNVNKALDFIASKGVKLVSIGAE

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	EIVDGNVKMTLGMIWTIILRFAIQDIS VEETSAKEGLLLWCQRKTAPYKNVNIQNFHIS WKDGLGFCALIHRHRPELIDYGKLRKDDPLTNLNTAFD VAEKYLDIPKMLDAEDIVGT ARPDEKAIMTYVSSFYHAFSGAQKAETAANRICKVLAVNQENEQLMEDYE KLASDL LEWIRRTIPWLENRVPENTMHAMQQKLEDFRDYRRLHKPPKVQEKCQLEINFNTLQ TKLRLSNR PAFMPSEGRMVSDINNAWGCLEQVEKGYEEWLLNEIRRLERLDHLAEK FRQKASIHEAWTDGKEAMLRQK DYETATLSEIKALLKKHEAFESDLAAHQDRVEQIA AIAQELNELDYYDSPSVNARCQKICDQWDNLGALT QKRREALERTEKLLETIDQLYL EYAKRAAPFNNWMEGAMEDLQDTFIVHTIEEIQGLTTAHEQFKATLPD ADKERLAIL GIHNEVSKIVQTYHVNMAGTNPYTTITPQEINGKWDHVRQLVPRRDQALTEEHARQ QHNER LRKQFGAQANVIGPWIQTKMEEIGRISIEMHGTLEDQLSHLRQYEKSIVNYK PKIDQLEGDHQLIQEALI FDNKHTNYTMEHIRVGWEQLLTTIARTINEVENQILTRDAK GISQEQMNEFRASFNHFDRDHSGTLGPEE FKACLISLGYDIGNDPQGEAEFARIMSI VDPNRLGVVTFQAFIDFMSRETADTDTADQVMASFKILAGDK NYITMDELRRELPPDQAEYCIARMAPYTGPDSVPGALDYMSFSTALYGESDLTRTRP LEQKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	Druggable Genome, ES Cell Differentiation/IPS

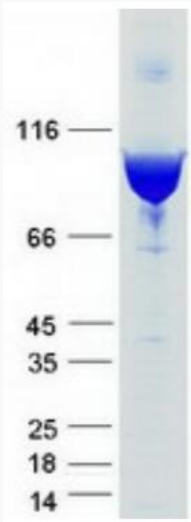
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Protein Pathways	Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Focal adhesion, Leukocyte transendothelial migration, Regulation of actin cytoskeleton, Systemic lupus erythematosus, Tight junction
Full Length	Full L.

GENE INFORMATION

Gene Name	ACTN1 actinin alpha 1 [Homo sapiens (human)]
Official Symbol	ACTN1
Synonyms	BDPLT15
Gene ID	87
mRNA Refseq	NM_001102.4
Protein Refseq	NP_001093.1
MIM	102575
UniProt ID	P12814

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Coomassie blue staining of purified ACTN1 protein.

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