

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	MDHYDSQQTNDYMQPEEDWDRDLLLDPAAWEKQQRKTFTAWCNSHLRKAGTQIENI EEDFRDGLKLMLELL VISGERLAKPERGKMRVHKISNVNKALDFIASKGVKLVSIGAE

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EIVDGNVKMTLGMiWTiILRFAIQDIS VEETSAKEGLLLWCQRKTAPYKNVNIQNFHIS
 WKDGLGFCALiHRHrPELiDYGKLrKDDPLTNLNTAFD VAEKYLDiPKMLDAEDiVGT
 ARPDEKAiMTYVSSFYHAFSGAQKAETAANRICKVLAVNQENEQLMEDYE KLASDL
 LEWIRRTiPWLENrVPENTMHAMQqKLEDfRDYRRlHKPPKVQEKcQLEiNFNTLQ
 TKLRLSNR PAFMPSEGRMVSDiNNAWGcLEQVEKGyEEWLLNEiRRLERLDHLAEK
 FRQKASIHEAWTDGKEAMLRQK DYETATLSEIKALLKKHEAFESDLAAHQDRVEQIA
 AIAQELNELDYDSPSVNARCQKICDQWDNLGALT QKRREALERTEKLLETiDQLYL
 EYAKRAAPFNNWMEGAMEDLQDTFiVHTIEEiQGLTTAHEQFKATLPD ADKERLAIL
 GIHNEVSKiVQTYHVNMAgTNPYTTiTpQEINGKWDHVRQLVPRRDQALTEEHARQ
 QHNER LRKQFGAQANViGPWiQTKMEEiGRISIEMHGTLedQLSHLRQYEkSiVNYK
 PKiDQLEGDHQLiQEALi FDNKHTNYTMEHiRVGWEQLLTTiARTiNEVENQiLTRDAK
 GiSQEQMNEFRASFNHFDRDHSGTLGPee FKACLiSLGYDiGNDPQGEAEFARIMSi
 VDPNRLGVVTFQAFiDFMSRETADTDADQVMASFKiLAGDK
 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

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

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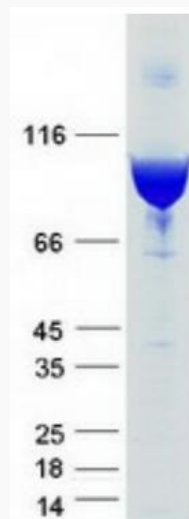
MIM	102575
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UniProt ID	P12814
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Coomassie blue staining of purified ACTN1 protein.

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