

Product datasheet for PH304924

alpha Actinin (ACTN1) (NM_001102) Human Mass Spec Standard

Product data:

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|---------------------------------------|---|
| Product Type: | Mass Spec Standards |
| Description: | ACTN1 MS Standard C13 and N15-labeled recombinant protein (NP_001093) |
| Species: | Human |
| Expression Host: | HEK293 |
| Expression cDNA Clone or AA Sequence: | RC204924 |
| Predicted MW: | 103.1 kDa |
| Protein Sequence: | >RC204924 protein sequence Red=Cloning site Green=Tags(s) |

MDHYDSQQTNDYMQPEEDWDRDLLLDPAAWEKQQRKTFTAWCNSHLRKAGTQIENIEEDFRDGLKMLLLE
VISGERLAKPERGKMRVHKISNVNKALDFIASKGVKLVSIGAEIIVDGNVKMTLGMWITILRFAIQDIS
VEETSAKEGLLLWCQRKTAPYKNVNIQNFHISWKDGLGFCALIHRHRPELIDYGKLRKDDPLTNLNTAFD
VAEKYLDIPKMLDAEDIVGTARPDEKAIMTYVSSFYHAFSGAQKAETAANRICKVLAVNQENEQLMEDYE
KLASDLLEWIRRTIPWLENRPENTMHAMQKLEDFRDYRRLHKPPKVQEKQCLEINFNTLQTKLRLSNR
PAFMPSEGRMVS DINNAWGCLEQVEKGYEEWLLNEIRRLERLDHLAEKFRQKASIHEAWTDGKEAMLRQK
DYETATLSEIKALLKKHEAFESDLAAHQDRVEQIAAIAQELNELDYYDPSVSNARCQKICDQWNLGALT
QKRREALERTEKLETTIDQLYLEYAKRAAFPNNWMEGAMEDLQDTFIVHTIEEIQGLTTAHEQFKATLPD
ADKERLAILGIHNEVSKIYQTYHVN MAGTNPYTTITPQEINGKWDHVRQLVPRRDQALTEEHARQQHNER
LRKQFGAQANVIGPWIQTKMEEIGRISIEMHGTLEDQLSHLRQYEKSI VNYKPKIDQLEGDHLIQEALI
FDNKHTNYTMEHIRVGEQLLTTIARTINEVENQILTRDAKGISQEQMNEFRASFNHFDRDHSGLGPEE
FKACLISLGYDIGNDPQGEAEFARIMSI VDPNRLGVVTFQAFIDFMSRETADTDTADQVMASFKILAGDK
NYITMDELRRLEPPDQAEYCIARMAPYTPGDSVPGALDYMSFSTALYGESDL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

| | |
|------------------|--|
| Tag: | C-Myc/DDK |
| Purity: | > 80% as determined by SDS-PAGE and Coomassie blue staining |
| Concentration: | >0.05 µg/µL as determined by microplate BCA method |
| Labeling Method: | Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine |
| Buffer: | 25 mM Tris-HCl, 100 mM glycine, pH 7.3 |
| Storage: | Store at -80°C. Avoid repeated freeze-thaw cycles. |
| Stability: | Stable for 3 months from receipt of products under proper storage and handling conditions. |



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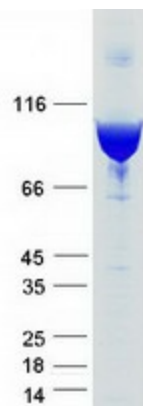
| | |
|---------------|---|
| RefSeq: | NP_001093 |
| RefSeq Size: | 3743 |
| RefSeq ORF: | 2676 |
| Synonyms: | BDPLT15 |
| Locus ID: | 87 |
| UniProt ID: | P12814 , A0A024R694 |
| Cytogenetics: | 14q22-q24 |

Summary: 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. [provided by RefSeq, Jul 2008]

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

Product images:



Coomassie blue staining of purified ACTN1 protein (Cat# [TP304924]). The protein was produced from HEK293T cells transfected with ACTN1 cDNA clone (Cat# [RC204924]) using MegaTran 2.0 (Cat# [TT210002]).