

## Product datasheet for PH308531

### ACTN2 (NM\_001103) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	ACTN2 MS Standard C13 and N15-labeled recombinant protein (NP_001094)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC208531
Predicted MW:	103.7 kDa
Protein Sequence:	>RC208531 representing NM_001103 Red=Cloning site Green=Tags(s)

MNQIEPGVQYNYVYDEDEYMIQEEEWDRDLLLDPAWKQQRKFTTAWCNSHLRKAGTQIENIEEDFRNGL  
KLMLELVISGERLPKPDRGKMRFKIANVNKALDYIASKGVKLVSIGAEEIVDGNVMTLGMIIWIIILR  
FAIQDISVEETSAKEGLLLWCQRKTAPYRNVNIQNFHTSWKDGLGLCALIHRHRPDLIDYSKLNKDDPIG  
NINLAMEIAEKHLIDIPKMLDAEDIVNTPKPDERAIMTYVSCFYHAFAGAEQAETAANRICKVLAVNQENE  
RLMEEYERLASELLEWIRRTIPWLENRTPEKTMQAMQKLEDFRDYRRKHKPPKQVEKQLEINFNTLQT  
KLRISNRPAFMPSEGKMSDIAGAWQRLEQAEKGYEELLNEIRRLERLEHLAEKFRQKASTHETWAYGK  
EQILLQKDYESASLTVRALLRKHEAFESDLAAHQDRVEQIAAIAQELNELDYHDAVNVNDRQCQKICDQW  
DRLGTLTQKRREALERMEKLETTIDQLHLEFAKRAAPFNNWMEGAMEDLQDMFIVHSIEEQSLITAHEQ  
FKATLPEADGERQSIMAIQNEVEKVIQSYNIRISSNPYSTVTMDLRTKWVKQLVPIRDQSLQEELA  
RQHANERLRRQFAAQANAIGPWIQNKMEEIARSSIQITGALEDQMNQKQYEHNIINYKNNIDKLEGDHQ  
LIQEALVFDNKHTNYTMEHIRVWELLLTTIARTINEVETQILTRDAKGITQEQMNEFRASFNHFDRRKN  
GLMDHEDFRACLISMGYDLGAEAFARIMTLVDPNGQGTVFQSFIDFMTRETADTDTAEQVIASFRILAS  
DKPYILAEELRRELPPDQAQYCIKMPAYSGPSVPGALDYAAFSSALYGESDL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-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.



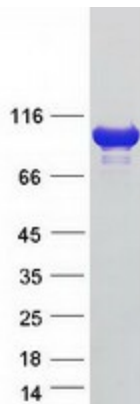
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RefSeq:	<a href="#">NP_001094</a>
RefSeq Size:	4181
RefSeq ORF:	2682
Synonyms:	CMD1AA; CMH23; MPD6; MYOCOZ
Locus ID:	88
UniProt ID:	<a href="#">P35609</a>
Cytogenetics:	1q43

**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 muscle-specific, alpha actinin isoform that is expressed in both skeletal and cardiac muscles. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2013]

**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 ACTN2 protein (Cat# [TP308531]). The protein was produced from HEK293T cells transfected with ACTN2 cDNA clone (Cat# [RC208531]) using MegaTran 2.0 (Cat# [TT210002]).