

#### OriGene Technologies, Inc.

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# Product datasheet for TP302873M

### alpha Actinin 4 (ACTN4) (NM\_004924) Human Recombinant Protein

### **Product data:**

| Product Type:                               | Recombinant Proteins  |
|---|---|
| Description:                                | Recombinant protein of human actinin, alpha 4 (ACTN4), 100 μg   |
| Species:                                    | Human   |
| Expression Host:                            | HEK293T   |
| Expression cDNA<br>Clone or AA<br>Sequence: | >RC202873 protein sequence<br><mark>Red</mark> =Cloning site Green=Tags(s)  |
|   | MVDYHAANQSYQYGPSSAGNGAGGGGSMGDYMAQEDDWDRDLLLDPAWEKQQRKTFTAWCNSHLRKAGTQ<br>IENIDEDFRDGLKLMLLLEVISGERLPKPERGKMRVHKINNVNKALDFIASKGVKLVSIGAEEIVDGNAK<br>MTLGMIWTIILRFAIQDISVEETSAKEGLLLWCQRKTAPYKNVNVQNFHISWKDGLAFNALIHRHRPELI<br>EYDKLRKDDPVTNLNNAFEVAEKYLDIPKMLDAEDIVNTARPDEKAIMTYVSSFYHAFSGAQKAETAANR<br>ICKVLAVNQENEHLMEDYEKLASDLLEWIRRTIPWLEDRVPQKTIQEMQQKLEDFRDYRRVHKPPKVQEK<br>CQLEINFNTLQTKLRLSNRPAFMPSEGKMVSDINNGWQHLEQAEKGYEEWLLNEIRRLERLDHLAEKFRQ<br>KASIHEAWTDGKEAMLKHRDYETATLSDIKALIRKHEAFESDLAAHQDRVEQIAAIAQELNELDYYDSHN<br>VNTRCQKICDQWDALGSLTHSRREALEKTEKQLEAIDQLHLEYAKRAAPFNNWMESAMEDLQDMFIVHTI<br>EEIEGLISAHDQFKSTLPDADREREAILAIHKEAQRIAESNHIKLSGSNPYTTVTPQIINSKWEKVQQLV<br>PKRDHALLEEQSKQQSNEHLRRQFASQANVVGPWIQTKMEEIGRISIEMNGTLEDQLSHLKQYERSIVDY<br>KPNLDLLEQQHQLIQEALIFDNKHTNYTMEHIRVGWEQLLTTIARTINEVENQILTRDAKGISQEQMQEF<br>RASFNHFDKDHGGALGPEEFKACLISLGYDVENDRQGEAEFNRIMSLVDPNHSGLVTFQAFIDFMSRETT<br>DTDTADQVIASFKVLAGDKNFITAEELRRELPPDQAEYCIARMAPYQGPDAVPGALDYKSFSTALYGESD<br>L |
|   | TRTRPLEQKLISEEDLAANDILDYKDDDDKV   |
| Tag:  | C-Myc/DDK   |
| Predicted MW:                               | 104.7 kDa   |
| Concentration:                              | >0.05 µg/µL as determined by microplate BCA method  |
| Purity:                                     | > 80% as determined by SDS-PAGE and Coomassie blue staining   |
| Buffer:                                     | 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol  |
|   |   |

Bioactivity: WB positive control (PMID: 27080942)



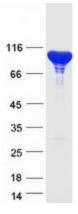
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|                   | alpha Actinin 4 (ACTN4) (NM_004924) Human Recombinant Protein – TP302873M   |
|-------------------|---|
| Preparation:      | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.  |
| Note:             | For testing in cell culture applications, please filter before use. Note that you may experience some<br>loss of protein during the filtration process.   |
| Storage:          | Store at -80°C.   |
| Stability:        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.   |
| RefSeq:           | <u>NP 004915</u>  |
| Locus ID:         | 81  |
| UniProt ID:       | <u>O43707, A0A0S2Z3G9</u>   |
| RefSeq Size:      | 3966  |
| Cytogenetics:     | 19q13.2   |
| RefSeq ORF:       | 2733  |
| Synonyms:         | ACTININ-4; FSGS; FSGS1  |
| 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, alpha actinin isoform which is concentrated in the cytoplasm, and thought to be involved in metastatic processes. Mutations in this gene have been associated with focal and segmental glomerulosclerosis. [provided by RefSeq, Jul 2008] |
| Protein Families: | Druggable Genome  |
| Protein Pathways: | Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Focal adhesion,<br>Leukocyte transendothelial migration, Regulation of actin cytoskeleton, Systemic lupus  |

erythematosus, Tight junction

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## **Product images:**



Coomassie blue staining of purified ACTN4 protein (Cat# [TP302873]). The protein was produced from HEK293T cells transfected with ACTN4 cDNA clone (Cat# [RC202873]) using MegaTran 2.0 (Cat# [TT210002]).

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