

## Recombinant Human ACTN2, His-tagged

**Cat. No.** ACTN2-31382TH    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant fragment, corresponding to amino acids 261-886 of Human Sarcomeric Alpha Actinin, with N terminal His tag, 626 amino acids, 72kDa, ,
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	261-886 a.a.
<b>Description</b>	<p>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.</p>
<b>Conjugation</b>	HIS
<b>Tissue specificity</b>	Expressed in both skeletal and cardiac muscle.
<b>Form</b>	Lyophilised:Reconstitution with 136 µl aqua dest.

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Storage buffer</b>	Preservative: None Constituents: 0.5% Trehalose, 6M Urea, 100mM Sodium phosphate, 10mM Sodium chloride, pH 4.5
<b>Storage</b>	Shipped at 4°C. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
<b>Sequences of amino acids</b>	<p>QAETAANRICKVLAVNQENERLMEEYERLASELLEWIRRT IPWLENRTPEKTMQAM            QKKLEDFRDYRRKHKPPKVQEK CQLEINFNTLQTKLRISNRPAFMPSEGKMOVSDIA            GAWQ RLEQAEEKGYEEWLLNEIRRLERLEHLAEKFRQKASTHETW AYGKEQILLQK            DYESASLTEVRALLRKHEAFESDLAAH QDRVEQIAAIAQELNELDYHDAVNVNDRC            QKICDQWDR LGTLTQKRREALERMEKLLLETIDQLHLEFAKRAAPFNN WMEGAMED            LQDMFIVHSIEEIQSLITAHEQFKATLPEADG ERQSIMAIQNEVEKVIQSYNIRISSNP            YSTVTMDELK TKWDKVKQLVPIRDQSLQEELARQHANERLRRQFAAQA NAIGPWI            QNKMEEIARSSIQITGALEDQMNQLKQYEHNIINYKNNIDKLEGDHQLIQEALVFDNK            HTNYTMEHIRVGW ELLTTIARTINEVETQILTRDAKGITQEQMNEFRASF NHFDRR            KNGLMDHEDFRACLISMGYDLGAEAFARIMTL VDPNGQGTVTFQSFIDFMTRETAD            TDTAEQVIASFRILAS DKPYILAEELRRELPPDQAQYCIKRMPPAYSGPGSVPGA LDY            AAFSS</p>
<b>Sequence Similarities</b>	Belongs to the alpha-actinin family. Contains 1 actin-binding domain. Contains 2 CH (calponin-homology) domains. Contains 2 EF-hand domains. Contains 4 spectrin repeats.

## GENE INFORMATION

<b>Gene Name</b>	ACTN2 actinin, alpha 2 [ Homo sapiens ]
<b>Official Symbol</b>	ACTN2
<b>Synonyms</b>	ACTN2; actinin, alpha 2; alpha-actinin-2;
<b>Gene ID</b>	88

<b>mRNA Refseq</b>	NM_001103
<b>Protein Refseq</b>	NP_001094
<b>MIM</b>	102573
<b>Uniprot ID</b>	P35609
<b>Chromosome Location</b>	1q42-q43
<b>Pathway</b>	Activation of NMDA receptor upon glutamate binding and postsynaptic events, organism-specific biosystem; Adherens junction, organism-specific biosystem; Adherens junction, conserved biosystem; Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem;
<b>Function</b>	FATZ 1 binding; ZASP binding; actin binding; calcium ion binding; identical protein binding;

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