Alpha-Actinin Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	alpha-Actinin (ACTN1), Blocking Peptide
Full Product Name	alpha-Actinin Blocking Peptide
Product Gene Name	ACTN1 blocking peptide
Product Synonym Names	actinin 1 smooth muscle; Actinin alpha 1; actinin, alpha 1; ACTN 1; Actn1; ACTN1_HUMAN; Alpha Actinin 1; Alpha actinin cytoskeletal isoform; Alpha-actinin cytoskeletal isoform; Alpha-actinin-1; BDPLT15; F actin cross linking protein; F-actin cross-linking protein; FLJ40884; FLJ54432; Non muscle alpha actinin 1; Non-muscle alpha-actinin-1
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	alpha-Actinin peptide (MBS9616619) is used for blocking the activity of alpha-Actinin antibody (MBS9613337)
Molecular Weight	103,058 Da
Chromosome Location	Chromosome: 14; NC_000014.8 (69340840..69446083, complement). Location: 14q24; 14q22-q24
OMIM	102575
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for ACTN1 blocking peptide	Blocking/Control
Related Product Information for ACTN1 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of ACTN1 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ACTN1 purchase	MBS9616619 is a blocking peptide targeting ACTN1. Also known as alpha-Actinin Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACTN1. It may not necessarily be applicable to this product.

NCBI GI #	4501891
NCBI GeneID	87
NCBI Accession #	NP_001093.1
UniProt Primary Accession #	P12814

UniProt Secondary Accession #	Q1HE25; Q9BTN1; B3V8S3; B4DHH3
UniProt Related Accession #	P12814
GenBank Nucleotide #	NM_001102.3
NCBI Official Full Name	alpha-actinin-1 isoform b
NCBI Official Synonym Full Names	actinin, alpha 1
NCBI Official Symbol	ACTN1
NCBI Official Synonym Symbols	BDPLT15
UniProt Protein Name	Alpha-actinin-1
UniProt Synonym Protein Names	Alpha-actinin cytoskeletal isoform; F-actin cross-linking protein; Non-muscle alpha-actinin-1
Protein Family	Alpha-actinin
UniProt Gene Name	ACTN1
UniProt Entry Name	ACTN1_HUMAN
NCBI Protein Information	alpha-actinin-1; actinin 1 smooth muscle; non-muscle alpha-actinin-1; F-actin cross-linking protein; alpha-actinin cytoskeletal isoform
NCBI Summary for ACTN1	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]
UniProt Comments for ACTN1	ACTN1: a cytoskeletal protein of the spectrin superfamily. An actin-binding protein with multiple roles in different cell types. A nonmuscle isoform structurally similar to the erythroid beta spectrin gene. Protein type: Cytoskeletal; Motility/polarity/chemotaxis Chromosomal Location of Human Ortholog: 14q24|14q22-q24 Cellular Component: extracellular space; cortical actin cytoskeleton; focal adhesion; dendritic spine; extracellular region; fascia adherens; pseudopodium; cytosol; Z disc; ruffle; cell projection; cytoplasm; plasma membrane; stress fiber; nucleus Molecular Function: integrin binding; actin filament binding; protein domain specific binding; protein binding; ligand-dependent nuclear receptor transcription coactivator activity; double-stranded RNA binding; calcium ion binding; vinculin binding Biological Process: actin crosslink formation; regulation of apoptosis; focal adhesion formation; actin filament bundle formation; platelet activation; extracellular matrix organization and biogenesis; platelet degranulation; negative regulation of cell motility; blood coagulation Disease: Bleeding Disorder, Platelet-type, 15
Research Articles on ACTN1	**1.** The tyrosine phosphorylation of alpha-actinin1 at Y12 and alpha-actinin4 at Y265 is critical for dorsal stress fiber establishment, transverse arc maintenance and focal adhesion maturation.
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