



Actinin- α 2 Monoclonal Antibody

Catalog No	YP-Ab-16841
Isotype	IgG
Reactivity	Human;Rat;Bovine;Chicken;Dog;Pig;Zebrafish
Applications	WB;IF
Gene Name	ACTN2/ACTN3
Immunogen	Purified recombinant human Actinin- α 2 (C-terminus) protein fragments expressed in E.coli.
Specificity	Actinin- α 2 Monoclonal Antibody detects endogenous levels of Actinin- α 2 protein.
Formulation	Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	Western Blot: 1/1000 - 1/2000. Immunofluorescence: 1/100 - 1/500. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	$\geq 90\%$
Storage Stability	-20°C/1 year
Synonyms	Actin binding protein;Actinin alpha 2;ACTN 2;ACTN2;ACTN2_HUMAN;Alpha actinin 2;Alpha actinin skeletal muscle;Alpha actinin skeletal muscle isoform 2; Alpha-actinin skeletal muscle isoform 2;Alpha-actinin-2;CMD1AA;F actin cross linking protein;F-actin cross-linking protein;Actinin alpha 3;actinin;alpha;ACTN 3; ACTN3;ACTN3_HUMAN;Alpha actinin skeletal muscle isoform 3;Alpha-Actinin 3; Alpha-actinin skeletal muscle isoform 3;Alpha-actinin-3;MGC1172;MGC1175; OTTHUMP21949;OTTHUMP21954;Actinin- α 2;ACTN2/ACTN3
Observed Band	
Calculated Molecular Weight	104kD
Cell Pathway	Cytoplasm, myofibril, sarcomere, Z line . Colocalizes with MYOZ1 and FLNC at the Z-lines of skeletal muscle.
Tissue Specificity	Expressed in both skeletal and cardiac muscle.
Function	disease:Defects in ACTN2 are the cause of cardiomyopathy dilated type 1AA (CMD1AA) [MIM:612158]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death.,function:F-actin cross-linking protein which is thought to anchor actin to a variety of intracellular



structures. This is a bundling protein.,similarity:Belongs to the alpha-actinin family.,similarity:Contains 1 actin-binding domain.,similarity:Contains 2 CH (calponin-homology) domains.,similarity:Contains 2 EF-hand domains.,similarity:Contains 4 spectrin repeats.,subcellular location:Colocalizes with MYOZ1 and FLNC at the Z-lines of skeletal muscle.,subunit:Homodimer; antiparallel. Also forms heterodimers with ACTN3. Interacts with ADAM12, MYOZ1, MYOZ2 and MYOZ3. Interacts via its C-terminal r

Background

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],

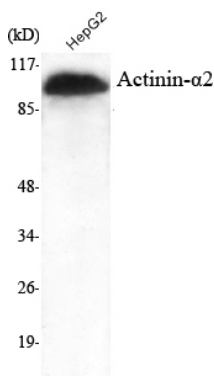
matters needing attention

Avoid repeated freezing and thawing!

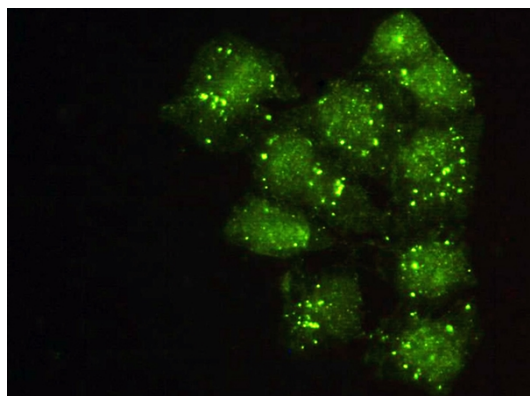
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis using Actinin- α 2 Monoclonal Antibody against HepG2 cell lysate.



Immunofluorescence analysis of HeLa cells using Actinin- α 2 Monoclonal Antibody.