Best Tools for immunology Research

Actinin-α2 Monoclonal Antibody

Catalog No :	YM1004
Reactivity :	Human;Rat;Bovine;Chicken;Dog;Pig;Zebrafish
Applications :	WB;IF
Target :	Actinin-α2
Fields :	>>Arrhythmogenic right ventricular cardiomyopathy
Gene Name :	ACTN2/ACTN3
Protein Name :	Alpha-actinin-2
Human Gene Id :	88
Human Swiss Prot No :	P35609
Mouse Swiss Prot No :	Q9JI91
Immunogen :	Purified recombinant human Actinin-α2 (C-terminus) protein fragments expressed in E.coli.
Specificity :	Actinin-α2 Monoclonal Antibody detects endogenous levels of Actinin-α2 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	WB 1:1000 - 1:2000. IF 1:100 - 1:500. Not yet tested in other applications.
Purification :	Affinity purification
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight : 104kD

Cell Pathway : Focal adhesion;Adherens_Junction;Adherens_Junction;Leukocyte transendothelial migration;Regulates Actin and Cytoskeleton;Systemic lupus erythematosus;Arrhythmogenic right ventricular cardiomyopathy (A

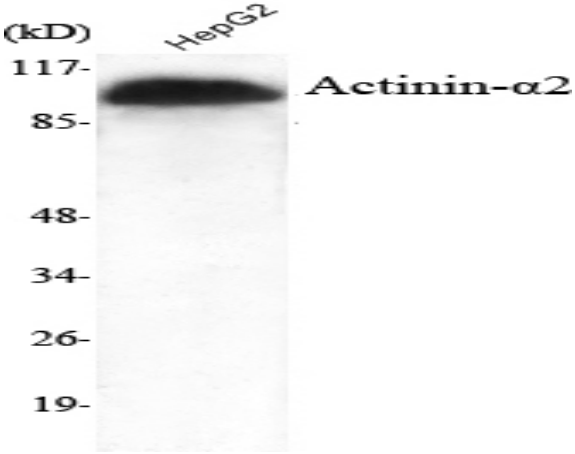
Background : Alpha actinins belong to the spectrin gene superfamily which represents a diverse group of cytoskeletal proteins, including the alpha and beta spectrins and dystrophins. Alpha actinin is an actin-binding protein with multiple roles in different cell types. In nonmuscle cells, the cytoskeletal 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],

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

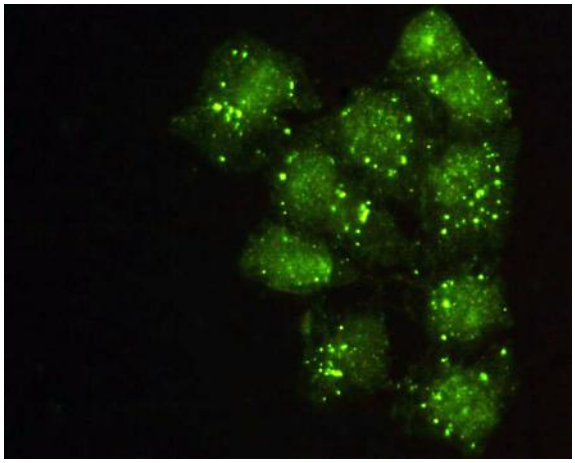
Subcellular Location : Cytoplasm, myofibril, sarcomere, Z line . Colocalizes with MYOZ1 and FLNC at the Z-lines of skeletal muscle.

Expression : Expressed in both skeletal and cardiac muscle.

Products Images



Western Blot analysis using Actinin-α2 Monoclonal Antibody against HepG2 cell lysate.



Immunofluorescence analysis of HeLa cells using Actinin-α2 Monoclonal Antibody.