

## Actinin-a2 Monoclonal Antibody

Catalog No: YM1004

Reactivity: Human;Rat;Bovine;Chicken;Dog;Pig;Zebrafish

**Applications:** WB;IF

**Target:** Actinin-a2

**Fields:** >>Arrhythmogenic right ventricular cardiomyopathy

Gene Name: ACTN2/ACTN3

Protein Name : Alpha-actinin-2

Human Gene Id: 88

**Human Swiss Prot** 

No:

**Mouse Swiss Prot** 

No:

**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.

P35609

Q9JI91

**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)

1/3



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

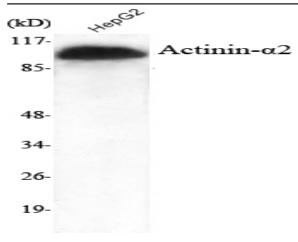
Subcellular Location:

Cytoplasm, myofibril, sarcomere, Z line. Colocalizes with MYOZ1 and FLNC at

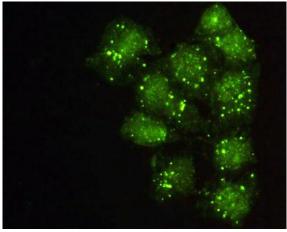
the Z-lines of skeletal muscle.

**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- $\!\alpha 2$  Monoclonal Antibody.