

**Actinin- $\alpha$ 2 Monoclonal Antibody**

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

**Molecularweight :** 104kD

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**Cell Pathway :** Focal adhesion;Adherens\_Junction;Adherens\_Junction;Leukocyte transendothelial migration;Regulates Actin and Cytoskeleton;Systemic lupus erythematosus;Arrhythmogenic right ventricular cardiomyopathy (A)

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**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],

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**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

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

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**Expression :** Expressed in both skeletal and cardiac muscle.

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**Sort :** 1708

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**No4 :** 1

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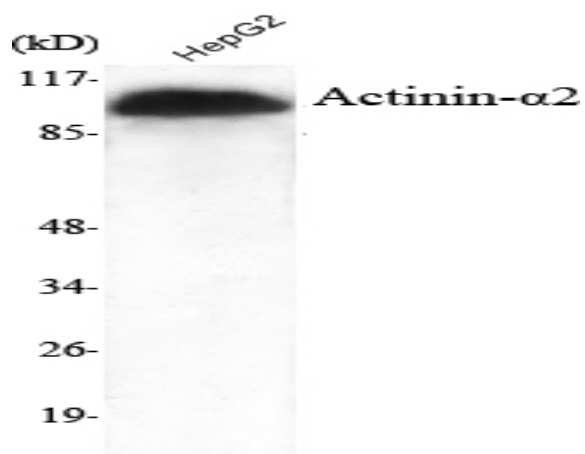
**Host :** Mouse

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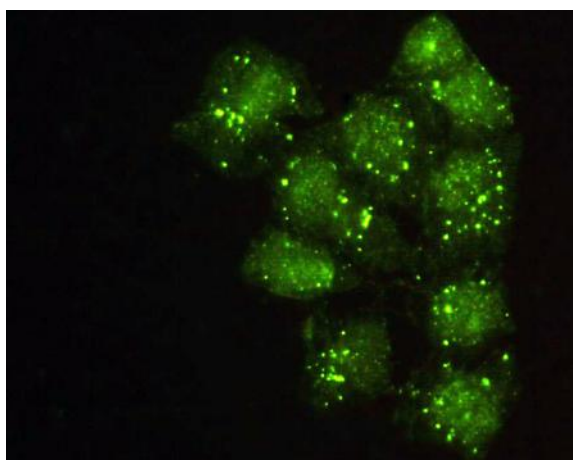
**Modifications :** Unmodified

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## Products Images



Western Blot analysis using Actinin- $\alpha$ 2 Monoclonal Antibody against HepG2 cell lysate.



Immunofluorescence analysis of HeLa cells using Actinin- $\alpha$ 2 Monoclonal Antibody.