

Xin α (M-300): sc-68409

BACKGROUND

Xin α , also known as CMYA1 (cardiomyopathy-associated protein 1) or XIRP1 (Xin Actin-binding repeat containing 1), is a 1,843 amino acid protein that functions to protect Actin filaments from depolymerization. Colocalized to the cell junction with Actin stress fibers, Xin α contains 15 Xin repeats and interacts with several proteins including β -catenin, Filamin and VASP (vasodilator-stimulated phosphoprotein). The Xin repeats with the protein are thought to stabilize Actin-based cytoskeletons and may help to crosslink microfilaments with Actin networks. Xin α shares 78% similarity with its mouse counterpart and is expressed in the heart as three alternatively spliced isoforms designated A, B and C. In mice, Xin α is essential for proper heart tube formation and correct cardiac looping, suggesting that the human homolog may have similar functions.

REFERENCES

1. Wang, D.Z., et al. 1999. Requirement of a novel gene, Xin, in cardiac morphogenesis. *Development* 126: 1281-1294.
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3. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609777. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Pacholsky, D., et al. 2004. Xin repeats define a novel actin-binding motif. *J. Cell Sci.* 117: 5257-5268.
5. Jung-Ching Lin, J., et al. 2005. Structure, expression, and function of a novel intercalated disc protein, Xin. *J. Med. Sci.* 25: 215-222.
6. van der Ven, P.F., et al. 2006. Unusual splicing events result in distinct Xin isoforms that associate differentially with filamin C and Mena/VASP. *Exp. Cell Res.* 312: 2154-2167.
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CHROMOSOMAL LOCATION

Genetic locus: XIRP1 (human) mapping to 3p22.2; Xirp1 (mouse) mapping to 9 F4.

SOURCE

Xin α (M-300) is a rabbit polyclonal antibody raised against amino acids 830-1129 mapping at the C-terminus of Xin α of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Xin α (M-300) is recommended for detection of Xin α of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Xin α siRNA (h): sc-63226, Xin α siRNA (m): sc-63227, Xin α shRNA Plasmid (h): sc-63226-SH, Xin α shRNA Plasmid (m): sc-63227-SH, Xin α shRNA (h) Lentiviral Particles: sc-63226-V and Xin α shRNA (m) Lentiviral Particles: sc-63227-V.

Molecular Weight of Xin α human splice variants: 205/130 kDa.

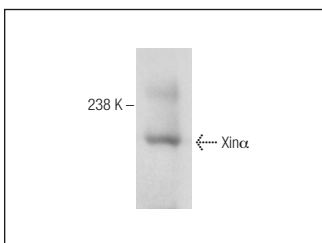
Molecular Weight of mouse Xin α : 150 kDa.

Positive Controls: Hs 732.Sk/Mu whole cell lysate: sc-364362.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



Xin α (M-300): sc-68409. Western blot analysis of Xin α expression in human skeletal muscle tissue extract.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
Satisfaction
Guaranteed

Try **Xin α (D-8): sc-166658** or **Xin α (41): sc-136123**, our highly recommended monoclonal alternatives to Xin α (M-300).