

Xin α (T-20): sc-67988

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.
2. Sinn, H.W., et al. 2002. Localization of the novel Xin protein to the adherens junction complex in cardiac and skeletal muscle during development. *Dev. Dyn.* 225: 1-13.
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.

SOURCE

Xin α (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Xin α of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-67988 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Xin α (T-20) is recommended for detection of Xin α of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 shRNA Plasmid (h): sc-63226-SH and Xin α shRNA (h) Lentiviral Particles: sc-63226-V.

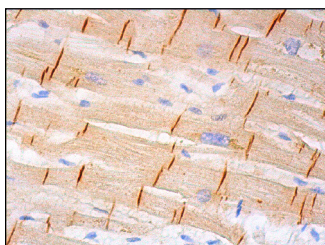
Molecular Weight of Xin α human splice variants: 205/130 kDa.

Molecular Weight of mouse Xin α : 150 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Xin α (T-20): sc-67988. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing intercalated disc staining of myocytes.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.


 MONOS
Satisfaction
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Try Xin α (D-8): sc-166658, our highly recommended monoclonal alternative to Xin α (T-20).