

## Xin $\alpha$ (H-300): sc-68408

### BACKGROUND

Xin $\alpha$ , 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 $\alpha$  contains 15 Xin repeats and interacts with several proteins including  $\beta$ -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 $\alpha$  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 $\alpha$  is essential for proper heart tube formation and correct cardiac looping, suggesting that the human homolog may have similar functions.

### CHROMOSOMAL LOCATION

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

### SOURCE

Xin $\alpha$  (H-300) is a rabbit polyclonal antibody raised against amino acids 735-1034 mapping within an internal region of Xin $\alpha$  of human origin.

### PRODUCT

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

### STORAGE

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

### APPLICATIONS

Xin $\alpha$  (H-300) is recommended for detection of Xin $\alpha$  of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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 $\alpha$  siRNA (h): sc-63226, Xin $\alpha$  siRNA (m): sc-63227, Xin $\alpha$  shRNA Plasmid (h): sc-63226-SH, Xin $\alpha$  shRNA Plasmid (m): sc-63227-SH, Xin $\alpha$  shRNA (h) Lentiviral Particles: sc-63226-V and Xin $\alpha$  shRNA (m) Lentiviral Particles: sc-63227-V.

Molecular Weight of human Xin $\alpha$  splice variants: 205/130 kDa.

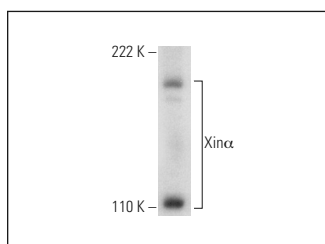
Molecular Weight of mouse Xin $\alpha$ : 150 kDa.

Positive Controls: Hs 732.Sk/Mu whole cell lysate: sc-364362 or SJRH30 cell lysate: sc-2287.

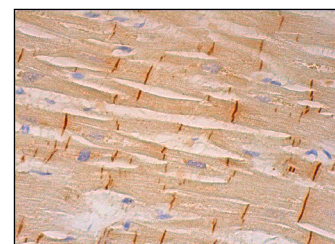
### RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

### DATA



Xin $\alpha$  (H-300): sc-68408. Western blot analysis of Xin $\alpha$  expression in Hs 732.Sk/Mu whole cell lysate.



Xin $\alpha$  (H-300): sc-68408. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing intercalated disc staining of myocytes.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **Xin $\alpha$  (D-8): sc-166658** or **Xin $\alpha$  (41): sc-136123**, our highly recommended monoclonal alternatives to Xin $\alpha$  (H-300).