SANTA CRUZ BIOTECHNOLOGY, INC.

α-sarcoglycan (H-82): sc-28278

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

The sarcoglycan transmembrane proteins are members of the dystrophin complex. Sarcoglycans cluster together to form a complex, which is localized in the cell membrane of skeletal, cardiac and smooth muscle fibers. Four sarcoglycan subunit proteins, designated α-, β-, γ- and δ-sarcoglycan, form a complex on the skeletal muscle cell surface membrane. A genetic defect in any one of these proteins causes the loss or marked decrease of the whole sarcoglycan complex, which is observed in the autosomal recessive muscular dystrophy, sarcoglycanopathy. In smooth muscle, β- and δ-sarcoglycans are associated with ε-sarcoglycan, a glycoprotein homologous to α-sarcoglycan. Additionally, a complete deficiency in δ-sarcoglycan is the cause of the Syrian hamster BIO.14 cardiomyopathy.

REFERENCES

1. Hack, A.A., et al. 2000. Differential requirement for individual sarcoglycans and dystrophin in the assembly and function of the dystrophin-glycoprotein complex. J. Cell Sci. 113: 2535-2544.
2. Barresi, R., et al. 2000. Expression of γ-sarcoglycan in smooth muscle and its interaction with the smooth muscle sarcoglycan-sarcospan complex. J. Biol. Chem. 275: 38554-38560.

CHROMOSOMAL LOCATION

Genetic locus: SGCA (human) mapping to 17q21.33; Sgca (mouse) mapping to 11 D.

SOURCE

α-sarcoglycan (H-82) is a rabbit polyclonal antibody raised against amino acids 24-105 mapping within an extracellular domain of α-sarcoglycan of human origin.

PRODUCT

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

APPLICATIONS

α-sarcoglycan (H-82) is recommended for detection of α-sarcoglycan of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

α-sarcoglycan (H-82) is also recommended for detection of α-sarcoglycan in additional species, including equine, canine and porcine.

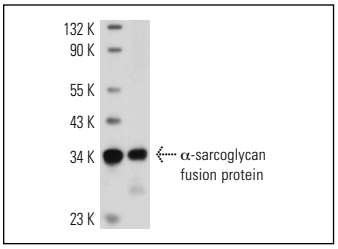
Suitable for use as control antibody for α-sarcoglycan siRNA (h): sc-43416, α-sarcoglycan siRNA (m): sc-43417, α-sarcoglycan shRNA Plasmid (h): sc-43416-SH, α-sarcoglycan shRNA Plasmid (m): sc-43417-SH, α-sarcoglycan shRNA (h) Lentiviral Particles: sc-43416-V and α-sarcoglycan shRNA (m) Lentiviral Particles: sc-43417-V.

Molecular Weight of α-sarcoglycan: 50 kDa.

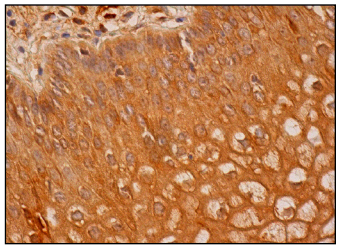
RECOMMENDED SECONDARY REAGENTS

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



α-sarcoglycan (H-82): sc-28278. Western blot analysis of human recombinant α-sarcoglycan fusion protein.



α-sarcoglycan (H-82): sc-28278. Immunoperoxidase staining of formalin fixed, paraffin-embedded human vagina tissue showing cytoplasmic and membrane staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

1. González-Ramírez, R., et al. 2008. Nuclear and nuclear envelope localization of dystrophin Dp71 and dystrophin-associated proteins (DAPs) in the C2C12 muscle cells: DAPs nuclear localization is modulated during myogenesis. J. Cell. Biochem. 105: 735-745.
2. Kawamichi, Y., et al. 2010. Cells of extraembryonic mesodermal origin confer human dystrophin in the mdx model of Duchenne muscular dystrophy. J. Cell. Physiol. 223: 695-702.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.