SANTA CRUZ BIOTECHNOLOGY, INC.

S-100A13 (63-Y): sc-100935

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

The S-100 protein family consists of a group of calcium-binding proteins, that exhibit cell and tissue-specific expression. The expression levels of its members differ in various pathological conditions. The extracellular functions of the S-100 family may include the ability to enhance neurite outgrowth, involvement in inflammation and motility of tumor cells. S-100A13 is a 98 amino acid protein with 2 EF-hand calcium-binding domains. High levels of S-100A13 mRNA are present in skeletal muscle, heart, kidney, ovary, small intestine and pancreas. S-100A13 translocates in response to elevated intracellular calcium levels induced by Angiotensin II. S-100A13 co-localizes with S-100A1 on human chromosome 1q21.3, the site where the majority of S-100 proteins cluster.

REFERENCES

1. Wicki, R., et al. 1996. Characterization of the human and mouse cDNAs coding for S-100A13, a new member of the S-100 protein family. Biochem. Biophys. Res. Commun. 227: 594-599.
2. Mouta Carreira, C., et al. 1998. S-100A13 is involved in the regulation of fibroblast growth factor-1 and p40 synaptotagmin-1 release *in vitro*. J. Biol. Chem. 273: 22224-22231.
3. Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 601989. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Shishibori, T., et al. 1999. Three distinct anti-allergic drugs, amlexanox, cromolyn and tranilast, bind to S-100A12 and S-100A13 of the S-100 protein family. Biochem. J. 338: 583-589.
5. Hsieh, H.L., et al. 2002. S-100A13 and S-100A6 exhibit distinct translocation pathways in endothelial cells. J. Cell Sci. 115: 3149-3158.
6. Chan, W.Y., et al. 2003. Differential expression of S-100 proteins in the developing human hippocampus and temporal cortex. Microsc. Res. Tech. 60: 600-613.
7. Hsieh, H.L., et al. 2004. S-100 protein translocation in response to extracellular S-100 is mediated by receptor for advanced glycation endproducts in human endothelial cells. Biochem. Biophys. Res. Commun. 16: 949-959.

CHROMOSOMAL LOCATION

Genetic locus: S100A13 (human) mapping to 1q21.3.

SOURCE

S-100A13 (63-Y) is a mouse monoclonal antibody raised against recombinant S-100A13 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain 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

S-100A13 (63-Y) is recommended for detection of S-100A13 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for S-100A13 siRNA (h): sc-63355, S-100A13 shRNA Plasmid (h): sc-63355-SH and S-100A13 shRNA (h) Lentiviral Particles: sc-63355-V.

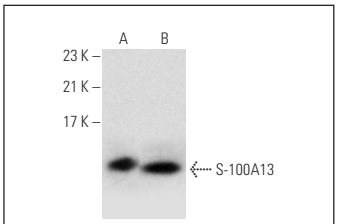
Molecular Weight of S-100A13: 10 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, ECV304 cell lysate: sc-2269 or HUV-EC-C whole cell lysate: sc-364180.

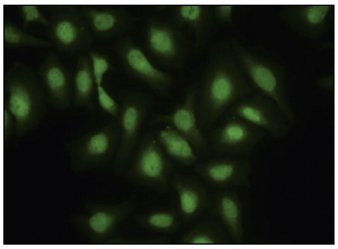
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



S-100A13 (63-Y): sc-100935. Western blot analysis of S-100A13 expression in HUV-EC-C (**A**) and ECV304 (**B**) whole cell lysates.



S-100A13 (63-Y): sc-100935. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Inoue, O., et al. 2015. Vascular smooth muscle cells stimulate platelets and facilitate thrombus formation through platelet CLEC-2: implications in atherothrombosis. PLoS ONE 10: e0139357.

RESEARCH USE

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

PROTOCOLS

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