

S-100A13 (P-12): sc-30652

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 two 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

- 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.
- 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.
- 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/>
- 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.
- Hsieh, H.L., et al. 2002. S-100A13 and S-100A6 exhibit distinct translocation pathways in endothelial cells. *J. Cell Sci.* 115: 3149-3158.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: S100A13 (human) mapping to 1q21.3; S100a13 (mouse) mapping to 3 F1.

SOURCE

S-100A13 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of S-100A13 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.

Blocking peptide available for competition studies, sc-30652 P, (100 µg 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

S-100A13 (P-12) is recommended for detection of S-100A13 of mouse, rat and 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); may cross-react with human UDP-GlcNAc:α-1,3-D-mannoside β-1,4-N-acetylglucosaminyltransferase IV.

S-100A13 (P-12) is also recommended for detection of S-100A13 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for S-100A13 siRNA (h): sc-63355, S-100A13 siRNA (m): sc-63356, S-100A13 shRNA Plasmid (h): sc-63355-SH, S-100A13 shRNA Plasmid (m): sc-63356-SH, S-100A13 shRNA (h) Lentiviral Particles: sc-63355-V and S-100A13 shRNA (m) Lentiviral Particles: sc-63356-V.

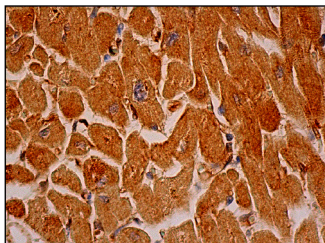
Molecular Weight of S-100A13: 10 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206 or NIH/3T3 + heat shock cell lysate: sc-2217.

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



S-100A13 (P-12): sc-30652. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic 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.