

S-100A16 (Q-12): sc-162137

BACKGROUND

The S-100 protein family consists of a group of calcium-binding proteins that are exclusively expressed in vertebrates and 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-100A16 (S100 calcium binding protein A16), also known as AAG13 (aging-associated gene 13 protein), S100F or DT1P1A7, is a 103 amino acid nuclear and cytoplasmic protein that exists as a homodimer that binds one calcium ion per monomer. A member of the EF-hand superfamily, S-100A16 contains two EF-hand domains and is encoded by a gene that maps to human chromosome 1q21.3.

REFERENCES

1. Donato, R. 1999. Functional roles of S100 proteins, calcium-binding proteins of the EF-hand type. *Biochim. Biophys. Acta* 1450: 191-231.
2. Zimmer, D.B., et al. 2003. Molecular mechanisms of S100-target protein interactions. *Microsc. Res. Tech.* 60: 552-559.
3. Marenholz, I., et al. 2004. S100A16, a ubiquitously expressed EF-hand protein which is up-regulated in tumors. *Biochem. Biophys. Res. Commun.* 313: 237-244.
4. Marenholz, I., et al. 2004. S100 proteins in mouse and man: from evolution to function and pathology (including an update of the nomenclature). *Biochem. Biophys. Res. Commun.* 322: 1111-1122.
5. Santamaria-Kisiel, L., et al. 2006. Calcium-dependent and -independent interactions of the S100 protein family. *Biochem. J.* 396: 201-214.
6. Sturchler, E., et al. 2006. S100A16, a novel calcium-binding protein of the EF-hand superfamily. *J. Biol. Chem.* 281: 38905-38917.

CHROMOSOMAL LOCATION

Genetic locus: S100A16 (human) mapping to 1q21.3; S100a16 (mouse) mapping to 3 F1.

SOURCE

S-100A16 (Q-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of S-100A16 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-162137 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

S-100A16 (Q-12) is recommended for detection of S-100A16 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other S-100A family members.

Suitable for use as control antibody for S-100A16 siRNA (h): sc-88602, S-100A16 siRNA (m): sc-153187, S-100A16 shRNA Plasmid (h): sc-88602-SH, S-100A16 shRNA Plasmid (m): sc-153187-SH, S-100A16 shRNA (h) Lentiviral Particles: sc-88602-V and S-100A16 shRNA (m) Lentiviral Particles: sc-153187-V.

Molecular Weight of S-100A16: 12 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.

PROTOCOLS

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