

S-100A5 (E-12): sc-165421

BACKGROUND

The S-100 proteins are small calcium-binding proteins which display different expression patterns in human tissues. Some S-100 proteins are associated with tumor development and the metastatic behavior of tumors. S-100A5 (S100 calcium binding protein A5) is a 92 amino acid protein that belongs to the S-100 family. Containing two EF-hand domains, S-100A5 binds calcium, zinc and copper. One subunit can simultaneously bind two calcium ions or two copper ions plus one zinc ion. Calcium and copper ions compete for the same binding sites on the S-100A5 protein. The S-100A5 protein is expressed in very restricted regions of the adult brain. The S-100A5 gene is conserved in chimpanzee, dog, cow, mouse and rat, and maps to human chromosome 1q21.3. S100 genes include at least 13 members which are located as a cluster on chromosome 1q21. Due to the clustered organization of the S-100 proteins a new logical nomenclature based on their physical arrangement on the chromosome has been described, with S-100A1 being closest to the telomere and S-100A9 being closest to the centromere.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: S100A5 (human) mapping to 1q21.3; S100a5 (mouse) mapping to 3 F1.

RESEARCH USE

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

SOURCE

S-100A5 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of S-100A5 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-165421 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

S-100A5 (E-12) is recommended for detection of S-100A5 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).

Suitable for use as control antibody for S-100A5 siRNA (h): sc-88698, S-100A5 siRNA (m): sc-153189, S-100A5 shRNA Plasmid (h): sc-88698-SH, S-100A5 shRNA Plasmid (m): sc-153189-SH, S-100A5 shRNA (h) Lentiviral Particles: sc-88698-V and S-100A5 shRNA (m) Lentiviral Particles: sc-153189-V.

Molecular Weight of S-100A5: 11 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.

STORAGE

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

PROTOCOLS

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