

S-100A3 (W-14): sc-132085

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-100A3 (S100 calcium binding protein A3), also known as S100E, is a 101 amino acid cysteine-rich protein that belongs to the S-100 family of proteins. Expressed specifically at the inner endocuticle of hair fibers, S-100A3 contains two EF-hand domains and exists as a multimer. S-100A3 binds calcium with low affinity and zinc with high affinity and is believed to play a role in the calcium-dependent differentiation of cuticle cells and in the formation of hair shafts.

CHROMOSOMAL LOCATION

Genetic locus: S100A3 (human) mapping to 1q21.3; S100a3 (mouse) mapping to 3 F1.

SOURCE

S-100A3 (W-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of S-100A3 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-132085 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.

APPLICATIONS

S-100A3 (W-14) is recommended for detection of S-100A3 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other S-100 family members.

S-100A3 (W-14) is also recommended for detection of S-100A3 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for S-100A3 siRNA (h): sc-78754, S-100A3 siRNA (m): sc-153188, S-100A3 shRNA Plasmid (h): sc-78754-SH, S-100A3 shRNA Plasmid (m): sc-153188-SH, S-100A3 shRNA (h) Lentiviral Particles: sc-78754-V and S-100A3 shRNA (m) Lentiviral Particles: sc-153188-V.

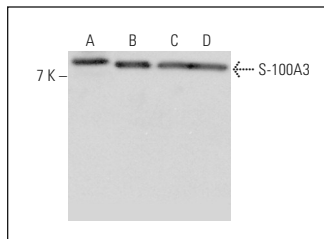
Molecular Weight of S-100A3 monomer: 12 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or mouse brain extract: sc-2253.

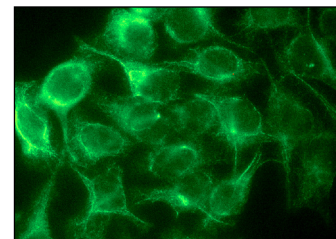
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



S-100A3 (W-14): sc-132085. Western blot analysis of S-100A3 expression in mouse brain tissue extract (A) and OVCAR-3 (B), Jurkat (C) and K-562 (D) whole cell lysates.



S-100A3 (W-14): sc-132085. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

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.



Try **S-100A3 (A-11): sc-514339**, our highly recommended monoclonal alternative to S-100A3 (W-14).