

S-100A16 (G-7): sc-390151

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

- Donato, R. 1999. Functional roles of S100 proteins, calcium-binding proteins of the EF-hand type. *Biochim. Biophys. Acta* 1450: 191-231.
- Zimmer, D.B., et al. 2003. Molecular mechanisms of S100-target protein interactions. *Microsc. Res. Tech.* 60: 552-559.
- Marenholz, I. and Heizmann, C.W. 2004. S100A16, a ubiquitously expressed EF-hand protein which is up-regulated in tumors. *Biochem. Biophys. Res. Commun.* 313: 237-244.
- 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.

CHROMOSOMAL LOCATION

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

SOURCE

S-100A16 (G-7) is a mouse monoclonal antibody raised against amino acids 1-103 representing full length S-100A16 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

S-100A16 (G-7) is available conjugated to agarose (sc-390151 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390151 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390151 PE), fluorescein (sc-390151 FITC), Alexa Fluor[®] 488 (sc-390151 AF488), Alexa Fluor[®] 546 (sc-390151 AF546), Alexa Fluor[®] 594 (sc-390151 AF594) or Alexa Fluor[®] 647 (sc-390151 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390151 AF680) or Alexa Fluor[®] 790 (sc-390151 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

S-100A16 (G-7) is recommended for detection of S-100A16 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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).

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.

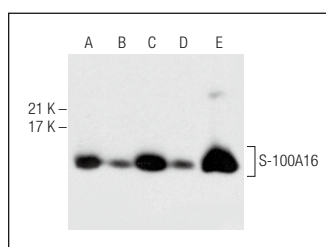
Molecular Weight of S-100A16: 12 kDa.

Positive Controls: PC-3 cell lysate: sc-2220, HeLa whole cell lysate: sc-2200 or A-431 whole cell lysate: sc-2201.

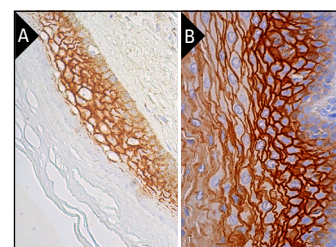
RECOMMENDED SUPPORT REAGENTS

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, UltraCruz[®] Blocking Reagent: sc-516214 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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



S-100A16 (G-7): sc-390151. Western blot analysis of S-100A16 expression in PC-3 (A), HeLa (B), A-431 (C) and Caki-1 (D) whole cell lysates and human hair protein extract (E).



S-100A16 (G-7): sc-390151. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing nuclear staining of keratinocytes, melanocytes and Langerhans cells. Blocked with 0.25X UltraCruz[®] Blocking Reagent: sc-516214. Detection reagents used: m-IgGκ BP-B: sc-516142 and ImmunoCruz[®] ABC Kit: sc-516216 (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing membrane staining of squamous epithelial cells (B).

RESEARCH USE

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