SANTA CRUZ BIOTECHNOLOGY, INC.

p44S10 (E-12): sc-393580

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

In eukaryotic cells, selective breakdown of cellular proteins is ensured by two distinct pathways, ubiquitination and degradation by the 26S Proteasome. At specific stages of development, embryo- and tissue-specific components of the 26S Proteasome are formed by developmentally regulated alternative splicing, including Rpn10a through Rpn10e (also designated pUb-R2 through pUb-R5). The pUb-R2 subunit, originally identified as S5a, is ubiquitously expressed and may perform proteolysis constitutively in a wide variety of cells. p44S10 is a highly conserved proteasome regulatory subunit that is expressed in heart, liver, skeletal muscle and pancreas. In addition to normal tissue expression, p44S10 is also expressed in several melanoma cell lines, such as MCF-7, 451Lu and WM164. Since forced expression of p44S10 in radial growth phase melanoma cells results in an increase in cellular proliferation, p44S10 may represent a potential link between regulation of proteasome activity and tumor cell proliferation *in vivo*.

REFERENCES

1. Lonnroth, I. and Lange, S. 1986. Purification and characterization of the antisecretory factor: a protein in the central nervous system and in the gut which inhibits intestinal hypersecretion induced by cholera toxin. Biochim. Biophys. Acta 883: 138-144.
2. Johansson, E., et al. 1995. Molecular cloning and expression of a pituitary gland protein modulating intestinal fluid secretion. J. Biol. Chem. 270: 20615-20620.
3. Coux, O., et al. 1996. Structure and functions of the 20S and 26S Proteasomes. Annu. Rev. Biochem. 65: 801-847.
4. Voges, D., et al. 1999. The 26S Proteasome: a molecular machine designed for controlled proteolysis. Annu. Rev. Biochem. 68: 1015-1068.

CHROMOSOMAL LOCATION

Genetic locus: PSMD6 (human) mapping to 3p14.1; Psmd6 (mouse) mapping to 14 A1.

SOURCE

p44S10 (E-12) is a mouse monoclonal antibody raised against amino acids 10-194 mapping near the N-terminus of p44S10 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p44S10 (E-12) is available conjugated to agarose (sc-393580 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393580 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393580 PE), fluorescein (sc-393580 FITC), Alexa Fluor® 488 (sc-393580 AF488), Alexa Fluor® 546 (sc-393580 AF546), Alexa Fluor® 594 (sc-393580 AF594) or Alexa Fluor® 647 (sc-393580 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393580 AF680) or Alexa Fluor® 790 (sc-393580 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

p44S10 (E-12) is recommended for detection of p44S10 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 p44S10 siRNA (h): sc-41383, p44S10 siRNA (m): sc-41384, p44S10 shRNA Plasmid (h): sc-41383-SH, p44S10 shRNA Plasmid (m): sc-41384-SH, p44S10 shRNA (h) Lentiviral Particles: sc-41383-V and p44S10 shRNA (m) Lentiviral Particles: sc-41384-V.

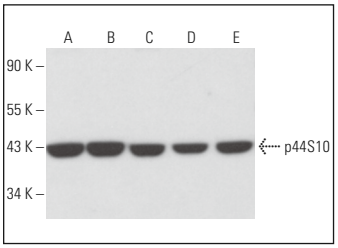
Molecular Weight of p44S10: 44 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180, F9 cell lysate: sc-2245 or Neuro-2A whole cell lysate: sc-364185.

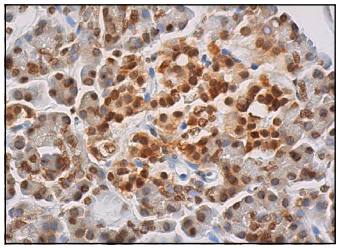
RECOMMENDED SUPPORT REAGENTS

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



p44S10 (E-12): sc-393580. Western blot analysis of p44S10 expression in HUV-EC-C (**A**), F9 (**B**), Neuro-2A (**C**), L6 (**D**) and RPE-J (**E**) whole cell lysates.



p44S10 (E-12): sc-393580. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing nuclear staining of exocrine glandular cells and nuclear and cytoplasmic staining of Islets of Langerhans.

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.