SANTA CRUZ BIOTECHNOLOGY, INC.

USP39 (E-18): sc-82393

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The ubiquitin (Ub) pathway involves three sequential enzymatic steps that facilitate the conjugation of Ub and Ub-like molecules to specific protein substrates. Through the use of a wide range of enzymes that can add or remove ubiquitin, the Ub pathway controls many intracellular processes such as signal transduction, transcriptional activation and cell cycle progression. USP39 (ubiquitin specific peptidase 39), also known as SAD1, CGI-21, HSPC332 or SNRNP65, is a 565 amino acid nuclear protein belonging to the peptidase C19 family. Containing one UBP-type zinc finger, USP39 play a role in mRNA splicing and is part of a tri-snRNP complex. USP39 is thought to be required for the stabilization of the spindle checkpoint and may help support successful cytokinesis. USP39 is encoded by a gene located on human chromosome 2.

REFERENCES

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2. Frederick, A., et al. 1998. The human UNP locus at 3p21.31 encodes two tissue-selective, cytoplasmic isoforms with deubiquitinating activity that have reduced expression in small cell lung carcinoma cell lines. Oncogene 16: 153-165.
3. Chung, C.H. and Baek, S.H. 1999. Deubiquitinating enzymes: their diversity and emerging roles. Biochem. Biophys. Res. Commun. 266: 633-640.
4. DeSalle, L.M., et al. 2001. The de-ubiquitinating enzyme Unp interacts with the retinoblastoma protein. Oncogene 20: 5538-5542.
5. Bosch-Comas, A., et al. 2006. The ubiquitin-specific protease USP25 interacts with three sarcomeric proteins. Cell. Mol. Life Sci. 63: 723-734.
6. Deng, S., et al. 2007. Over-expression of genes and proteins of ubiquitin specific peptidases (USPs) and proteasome subunits (PSs) in breast cancer tissue observed by the methods of RFDD-PCR and proteomics. Breast Cancer Res. Treat. 104: 21-30.
7. van Leuken, R.J., et al. 2008. Usp39 is essential for mitotic spindle checkpoint integrity and controls mRNA-levels of aurora B. Cell Cycle 7: 2710-2719.

CHROMOSOMAL LOCATION

Genetic locus: USP39 (human) mapping to 2p11.2; Usp39 (mouse) mapping to 6 C1.

SOURCE

USP39 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of USP39 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-82393 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

USP39 (E-18) is recommended for detection of USP39 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 USP family members.

USP39 (E-18) is also recommended for detection of USP39 in additional species, including equine and canine.

Suitable for use as control antibody for USP39 siRNA (h): sc-76849, USP39 siRNA (m): sc-76850, USP39 shRNA Plasmid (h): sc-76849-SH, USP39 shRNA Plasmid (m): sc-76850-SH, USP39 shRNA (h) Lentiviral Particles: sc-76849-V and USP39 shRNA (m) Lentiviral Particles: sc-76850-V.

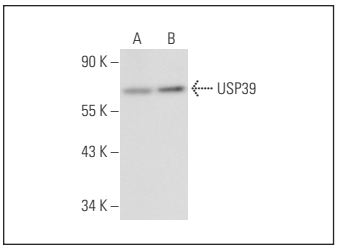
Molecular Weight of USP39: 65 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, NIH/3T3 nuclear extract: sc-2138 or K-562 whole cell lysate: sc-2203.

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



USP39 (E-18): sc-82393. Western blot analysis of USP39 expression in Jurkat (**A**) and NIH/3T3 (**B**) nuclear extracts.

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.