

USP20 (1A6): sc-517134

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. USP20 (ubiquitin specific peptidase 20), also known as VDU2 or LFSR3A, is a 914 amino acid protein that contains one UBP-type zinc finger and 2 DUSP domains. USP20 functions to catalyze the conversion of a ubiquitin C-terminal thioester to free ubiquitin and thiol, a reaction that may influence several cellular processes. Via its catalytic activity, USP20 is thought to play an important role in cell cycle progression and may also serve as a cancer stem cell marker.

REFERENCES

1. Nagase, T., et al. 1999. Prediction of the coding sequences of unidentified human genes. XIII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 6: 63-70.
2. Li, Z., et al. 2002. Identification of a deubiquitinating enzyme subfamily as substrates of the von Hippel-Lindau tumor suppressor. Biochem. Biophys. Res. Commun. 294: 700-709.
3. Curcio-Morelli, C., et al. 2003. Deubiquitination of type 2 iodothyronine deiodinase by von Hippel-Lindau protein-interacting deubiquitinating enzymes regulates thyroid hormone activation. J. Clin. Invest. 112: 189-196.
4. Li, Z., et al. 2005. VHL protein-interacting deubiquitinating enzyme 2 deubiquitinates and stabilizes HIF-1 α . EMBO Rep. 6: 373-378.
5. Daub, H., et al. 2008. Kinase-selective enrichment enables quantitative phosphoproteomics of the kinome across the cell cycle. Mol. Cell 31: 438-448.

CHROMOSOMAL LOCATION

Genetic locus: USP20 (human) mapping to 9q34.11.

SOURCE

USP20 (1A6) is a mouse monoclonal antibody raised against amino acids 252-349 representing partial length USP20 of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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 for detailed protocols and support products.

APPLICATIONS

USP20 (1A6) is recommended for detection of USP20 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

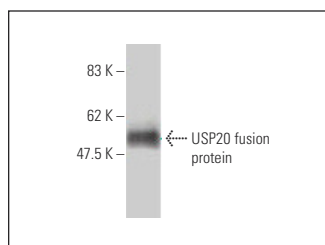
Suitable for use as control antibody for USP20 siRNA (h): sc-76823, USP20 shRNA Plasmid (h): sc-76823-SH and USP20 shRNA (h) Lentiviral Particles: sc-76823-V.

Molecular Weight of USP20: 102 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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).

DATA



USP20 (1A6): sc-517134. Western blot analysis of human recombinant USP20 fusion protein.

RESEARCH USE

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