

USP43 (m): 293T Lysate: sc-126200

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. USP43 (ubiquitin specific peptidase 43), also known as deubiquitinating enzyme 43 or ubiquitin thioesterase 43, is a 1,124 amino acid protein belonging to the peptidase C19 family. USP43 hydrolyzes the peptide bond of C-terminal glycine of ubiquitin, and plays an important role in the processing of ubiquitinated proteins and poly-ubiquitin precursors. Expressed at low levels in lung, aorta and brain, USP43 is encoded by a gene mapping to human chromosome 17p13.1. Three USP43 isoforms exist as a result of alternative splicing events.

REFERENCES

1. Fischer, J.A. 2003. Deubiquitinating enzymes: their roles in development, differentiation, and disease. *Int. Rev. Cytol.* 229: 43-72.
2. Puente, X.S., et al. 2003. Human and mouse proteases: a comparative genomic approach. *Nat. Rev. Genet.* 4: 544-558.
3. Quesada, V., et al. 2004. Cloning and enzymatic analysis of 22 novel human ubiquitin-specific proteases. *Biochem. Biophys. Res. Commun.* 314: 54-62.
4. Kimura, K., et al. 2006. Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. *Genome Res.* 16: 55-65.
5. Lehman, N.L. 2009. The ubiquitin proteasome system in neuropathology. *Acta Neuropathol.* 118: 329-347.
6. Ye, Y., et al. 2009. Dissection of USP catalytic domains reveals five common insertion points. *Mol. Biosyst.* 5: 1797-1808.

CHROMOSOMAL LOCATION

Genetic locus: *Usp43* (mouse) mapping to 11 B3.

PRODUCT

USP43 (m): 293T Lysate represents a lysate of mouse USP43 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

USP43 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive USP43 antibodies. Recommended use: 10-20 µl per lane.

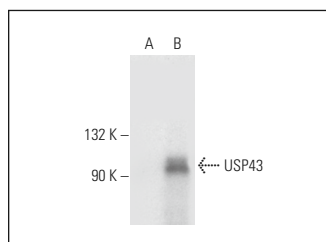
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

USP43 (C-8): sc-398436 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse USP43 expression in USP43 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

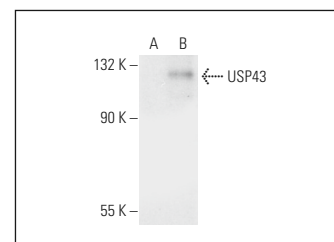
RECOMMENDED SUPPORT REAGENTS

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.

DATA



USP43 (C-8): sc-398436. Western blot analysis of USP43 expression in non-transfected: sc-117752 (A) and mouse USP43 transfected: sc-126200 (B) 293T whole cell lysates.



USP43 (H-10): sc-393895. Western blot analysis of USP43 expression in non-transfected: sc-117752 (A) and mouse USP43 transfected: sc-126200 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.