

USP10 (h): 293T Lysate: sc-174152

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. USP10 (ubiquitin specific peptidase 10), also known as UBPO, is a 798 amino acid protein that belongs to the ubiquitin-specific protease family of cysteine proteases. Expressed in a variety of tissues, USP10 functions to catalyze the cleavage of ubiquitin from ubiquitin-conjugated protein substrates, possibly playing a role in the activity of the DNA-bound androgen receptor complex.

REFERENCES

1. Nagase, T., Seki, N., Ishikawa, K., Tanaka, A. and Nomura, N. 1996. Prediction of the coding sequences of unidentified human genes. V. The coding sequences of 40 new genes (KIAA0161-KIAA0200) deduced by analysis of cDNA clones from human cell line KG-1. *DNA Res.* 3: 17-24.
2. D'Andrea, A. and Pellman, D. 1998. Deubiquitinating enzymes: a new class of biological regulators. *Crit. Rev. Biochem. Mol. Biol.* 33: 337-352.
3. Soncini, C., Berdo, I. and Draetta, G. 2001. Ras GAP SH3 domain binding protein (G3BP) is a modulator of USP10, a novel human ubiquitin specific protease. *Oncogene* 20: 3869-3879.
4. Puente, X.S., Sánchez, L.M., Overall, C.M. and López-Otín, C. 2003. Human and mouse proteases: a comparative genomic approach. *Nat. Rev. Genet.* 4: 544-558.
5. Faus, H., Meyer, H.A., Huber, M., Bahr, I. and Haendler, B. 2005. The ubiquitin-specific protease USP10 modulates androgen receptor function. *Mol. Cell. Endocrinol.* 245: 138-146.
6. Grunda, J.M., Nabors, L.B., Palmer, C.A., Chhieng, D.C., Steg, A., Mikkelsen, T., Diasio, R.B., Zhang, K., Allison, D., Grizzle, W.E., Wang, W., Gillespie, G.Y. and Johnson, M.R. 2006. Increased expression of thymidylate synthetase (TS), ubiquitin specific protease 10 (USP10) and survivin is associated with poor survival in glioblastoma multiforme (GBM). *J. Neurooncol.* 80: 261-274.
7. Deng, S., Zhou, H., Xiong, R., Lu, Y., Yan, D., Xing, T., Dong, L., Tang, E. and Yang, H. 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.
8. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 609818. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: USP10 (human) mapping to 16q24.1.

PRODUCT

USP10 (h): 293T Lysate represents a lysate of human USP10 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

USP10 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive USP10 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.

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.

RESEARCH USE

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

PROTOCOLS

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