



Ubr7 (h): 293 Lysate: sc-111853

BACKGROUND

Ubiquitination is an important mechanism through which three classes of enzymes act in concert to target short-lived or abnormal proteins for destruction. The three classes of enzymes involved in ubiquitination are the ubiquitin-activating enzymes (E1s), the ubiquitin-conjugating enzymes (E2s) and the ubiquitin-protein ligases (E3s). Ubr7 (ubiquitin protein ligase E3 component N-recogin 7), also known as C14orf130 or N-recogin-7, is a 425 amino acid protein that contains one Ubr-type zinc finger and one PHD zinc finger. Participating in protein modification events within the N-end rule pathway, Ubr7 functions as an E3 ubiquitin-protein ligase that recognizes and binds proteins that contain destabilizing N-terminal residues, thereby leading to their ubiquitination and subsequent degradation.

REFERENCES

1. Aasland, R., Gibson, T.J. and Stewart, A.F. 1995. The PHD finger: implications for chromatin-mediated transcriptional regulation. *Trends Biochem. Sci.* 20: 56-59.
2. Varshavsky, A. 1996. The N-end rule: functions, mysteries, uses. *Proc. Natl. Acad. Sci. USA* 93: 12142-12149.
3. Xie, Y. and Varshavsky, A. 1999. The E2-E3 interaction in the N-end rule pathway: the RING-H2 finger of E3 is required for the synthesis of multiubiquitin chain. *EMBO J.* 18: 6832-6844.
4. Tasaki, T., Mulder, L.C., Iwamatsu, A., Lee, M.J., Davydov, I.V., Varshavsky, A., Muesing, M. and Kwon, Y.T. 2005. A family of mammalian E3 ubiquitin ligases that contain the Ubr box motif and recognize N-degrons. *Mol. Cell. Biol.* 25: 7120-7136.
5. Lim, J., Hao, T., Shaw, C., Patel, A.J., Szabó, G., Rual, J.F., Fisk, C.J., Li, N., Smolyar, A., Hill, D.E., Barabási, A.L., Vidal, M. and Zoghbi, H.Y. 2006. A protein-protein interaction network for human inherited ataxias and disorders of Purkinje cell degeneration. *Cell* 125: 801-814.
6. Tasaki, T., Sohr, R., Xia, Z., Hellweg, R., Hörtnagl, H., Varshavsky, A. and Kwon, Y.T. 2007. Biochemical and genetic studies of Ubr3, a ubiquitin ligase with a function in olfactory and other sensory systems. *J. Biol. Chem.* 282: 18510-18520.
7. Lee, M.J., Pal, K., Tasaki, T., Roy, S., Jiang, Y., An, J.Y., Banerjee, R. and Kwon, Y.T. 2008. Synthetic heterovalent inhibitors targeting recognition E3 components of the N-end rule pathway. *Proc. Natl. Acad. Sci. USA* 105: 100-105.

CHROMOSOMAL LOCATION

Genetic locus: UBR7 (human) mapping to 14q32.12.

PRODUCT

Ubr7 (h): 293 Lysate represents a lysate of human Ubr7 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

Ubr7 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive Ubr7 antibodies. Recommended use: 10-20 µl per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

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.