



UBE2D3 (h): 293 Lysate: sc-110785

BACKGROUND

UBE2D1 (ubiquitin-conjugating enzyme E2D1 or UBC5A), UBE2D2 (ubiquitin-conjugating enzyme E2D2 or UBC5B) and UBE2D3 (ubiquitin-conjugating enzyme E2D3 or UBC5C) are E2 ubiquitin-conjugating enzymes, components of the protein ubiquitination pathway. Protein ubiquitination covalent modification targets proteins for 26S Proteasome-dependent degradation. Three classes of enzymes influence the conjugation mechanism of ubiquitin to protein. E1 ubiquitin-activating enzymes mediate ATP-dependent charging of ubiquitin via formation of a high energy thiol ester bond between the C-terminus of ubiquitin and a cysteine within itself. Thiol ester-linked ubiquitin is then transferred from E1 to a cysteine residue in an E2 ubiquitin-conjugating enzyme. E2 enzymes, in conjunction with E3 ubiquitin-protein ligases, transfer ubiquitin monomers and polyubiquitin chains to the substrate target protein, where stable isopeptide linkages are formed.

REFERENCES

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3. Gu, H., et al. 2003. The degradation of promyelocytic leukemia and SP-100 proteins by herpes simplex virus 1 is mediated by the ubiquitin-conjugating enzyme UBCH5A. *Proc. Natl. Acad. Sci. USA* 100: 8963-8968.
4. Dominguez, C., et al. 2004. Structural model of the UBCH5B/CNOT4 complex revealed by combining NMR, mutagenesis, and docking approaches. *Structure* 12: 633-644.
5. Knutson, M., et al. 2004. Developmental, regional, and cellular expression of SFT/UBCH5A and DMT1 mRNA in brain. *J. Neurosci. Res.* 76: 633-641.
6. Saville, M.K., et al. 2004. Regulation of p53 by the ubiquitin-conjugating enzymes UBCH5B/C *in vivo*. *J. Biol. Chem.* 279: 42169-42181.
7. Houben, K., et al. 2004. Solution structure of the ubiquitin-conjugating enzyme UBCH5B. *J. Mol. Biol.* 344: 513-526.
8. Saxena, K., et al. 2005. Backbone NMR assignment of the human E2 ubiquitin conjugating enzyme UBCH5 α (F72K,F82S) double mutant. *J. Biomol. NMR* 32: 338.
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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.

CHROMOSOMAL LOCATION

Genetic locus: UBE2D3 (human) mapping to 4q24.

PRODUCT

UBE2D3 (h): 293 Lysate represents a lysate of human UBE2D3 transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

UBE2D3 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive UBE2D3 antibodies. Recommended use: 10-20 μ l 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.