UBE2E2 (m): 293T Lysate: sc-124409



The Power to Question

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). The first step in the ubiquitination process requires the ATP-dependent activation of the ubiquitin C-terminus and the assembly of multi-ubiquitin chains by the E1 enzyme. The ubiquitin chain is then conjugated to the E2 enzyme to generate an intermediate ubiquitin-E2 complex. The E3 enzyme then catalyzes the transfer of ubiquitin from E2 to the appropriate protein substrate, thereby targeting that substrate for degradation. A wide range of enzymes facilitate this proteolytic ubiquitin pathway, one of which is UBE2E2 (also known as UBCH8 in human), which functions as an E2 enzyme and catalyzes the ATP-dependent covalent attachment of ubiquitin to target proteins, thereby playing an important role in protein degradation.

REFERENCES

- Kimura, M., Hattori, T., Matsuda, Y., Yoshioka, T., Sumi, N., Umeda, Y., Nakashima, S. and Okano, Y. 1997. cDNA cloning, characterization, and chromosome mapping of UBE2E2 encoding a human ubiquitin-conjugating E2 enzyme. Cytogenet. Cell Genet. 78: 107-111.
- Moynihan, T.P., Ardley, H.C., Nuber, U., Rose, S.A., Jones, P.F., Markham, A.F., Scheffner, M. and Robinson, P.A. 1999. The ubiquitin-conjugating enzymes UBCH7 and UBCH8 interact with RING finger/IBR motif-containing domains of HHARI and H7-AP1. J. Biol. Chem. 274: 30963-30968.
- Ito, K., Adachi, S., Iwakami, R., Yasuda, H., Muto, Y., Seki, N. and Okano, Y. 2001. N-terminally extended human ubiquitin-conjugating enzymes (E2s) mediate the ubiquitination of RING-finger proteins, ARA54 and RNF8. Eur. J. Biochem. 268: 2725-2732.
- Pringa, E., Martinez-Noel, G., Muller, U. and Harbers, K. 2001. Interaction
 of the ring finger-related U-box motif of a nuclear dot protein with ubiquitin-conjugating enzymes. J. Biol. Chem. 276: 19617-19623.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602163. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Plafker, S.M., Plafker, K.S., Weissman, A.M. and Macara, I.G. 2004.
 Ubiquitin charging of human class III ubiquitin-conjugating enzymes triggers their nuclear import. J. Cell Biol. 167: 649-659.
- Kim, K.I., Giannakopoulos, N.V., Virgin, H.W. and Zhang, D.E. 2004. Interferon-inducible ubiquitin E2, UBC8, is a conjugating enzyme for protein ISGylation. Mol. Cell. Biol. 24: 9592-9600.

CHROMOSOMAL LOCATION

Genetic locus: Ube2e2 (mouse) mapping to 14 A2.

PRODUCT

UBE2E2 (m): 293T Lysate represents a lysate of mouse UBE2E2 transfected 293T cells and is provided as 100 μg protein in 200 μl SDS-PAGE buffer.

APPLICATIONS

UBE2E2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive UBE2E2 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.

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