

# UBE2H (E-3): sc-515702

## BACKGROUND

UBE2H (ubiquitin-conjugating enzyme E2H), also known as UBC8, UBCH, UBCH2 or E2-20K, is a 183 amino acid protein involved in ubiquitin-mediated protein degradation. 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). One of several members of the ubiquitin-conjugating enzyme family, UBE2H functions as an E2 ubiquitin-conjugating enzyme that acts to catalyze the covalent attachment of ubiquitin residues to various proteins, including Histone H2A. UBE2H shares 100% identity with its mouse counterpart and 98% identity with its frog and zebrafish homologs, suggesting a conserved function between species. Multiple isoforms of UBE2H exist due to alternative splicing events.

## REFERENCES

1. Kaiser, P., et al. 1994. A human ubiquitin-conjugating enzyme homologous to yeast UBC8. *J. Biol. Chem.* 269: 8797-8802.
2. Kaiser, P., et al. 1995. Characterization of functionally independent domains in the human ubiquitin conjugating enzyme UbcH2. *FEBS Lett.* 377: 193-196.
3. Wefes, I., et al. 1995. Induction of ubiquitin-conjugating enzymes during terminal erythroid differentiation. *Proc. Natl. Acad. Sci. USA* 92: 4982-4986.
4. Hayashida, S., et al. 2000. Construction of a physical and transcript map flanking the imprinted MEST/PEG1 region at 7q32. *Genomics* 66: 221-225.
5. Vourc'h, P., et al. 2003. Mutation screening and association study of the UBE2H gene on chromosome 7q32 in autistic disorder. *Psychiatr. Genet.* 13: 221-225.
6. Li, Y.P., et al. 2003. TNF- $\alpha$  increases ubiquitin-conjugating activity in skeletal muscle by up-regulating UbcH2/E220k. *FASEB J.* 17: 1048-1057.
7. Rajendra, R., et al. 2004. Topors functions as an E3 ubiquitin ligase with specific E2 enzymes and ubiquitinates p53. *J. Biol. Chem.* 279: 36440-36444.
8. Chuang, T.H. and Ulevitch, R.J. 2004. Triad3A, an E3 ubiquitin-protein ligase regulating Toll-like receptors. *Nat. Immunol.* 5: 495-502.

## CHROMOSOMAL LOCATION

Genetic locus: UBE2H (human) mapping to 7q32.2; Ube2h (mouse) mapping to 6 A3.3.

## SOURCE

UBE2H (E-3) is a mouse monoclonal antibody raised against amino acids 1-183 representing full length UBE2H of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

UBE2H (E-3) is recommended for detection of UBE2H of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for UBE2H siRNA (h): sc-89802, UBE2H siRNA (m): sc-106659, UBE2H shRNA Plasmid (h): sc-89802-SH, UBE2H shRNA Plasmid (m): sc-106659-SH, UBE2H shRNA (h) Lentiviral Particles: sc-89802-V and UBE2H shRNA (m) Lentiviral Particles: sc-106659-V.

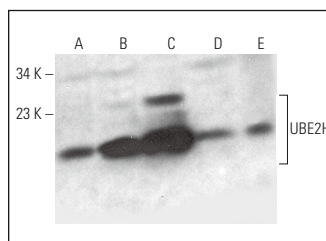
Molecular Weight of UBE2H: 21 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, JAR cell lysate: sc-2276 or A2058 whole cell lysate: sc-364178.

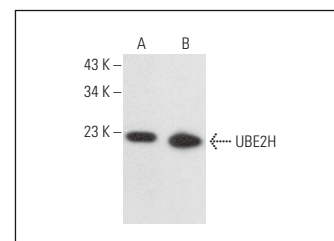
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



UBE2H (E-3): sc-515702. Western blot analysis of UBE2H expression in HeLa (A), JAR (B), A2058 (C) and OV-90 (D) whole cell lysates and human placenta tissue extract (E).



UBE2H (E-3): sc-515702. Western blot analysis of UBE2H expression in OVCA-3 whole cell lysate (A) and rat skin tissue extract (B).

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. 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](http://www.scbt.com) for detailed protocols and support products.