

UBC8 (E-5): sc-166276

BACKGROUND

Ubiquitin is an abundant, highly conserved protein found in all eukaryotic cells, either free or covalently attached to cellular proteins. The primary function of ubiquitin in mammalian systems is to clear abnormal, foreign and improperly folded proteins by targeting them for proteasome degradation. Ubiquitin conjugating enzyme 8 (UBC8) is an E2 enzyme involved in the ubiquitin pathway for protein degradation. Like other E2 enzymes, UBC8 forms a thioester bond with ubiquitin in an E1-dependent manner. UBC8 binds to the human homolog of *Drosophila ariadne* (HHARI) and UBC7-associated protein (H7-AP1) as well as double ring-finger protein (Dorfin). UBC8 is enriched in the central nervous system and interacts with Parkin, a RING-finger-containing protein implicated in the pathogenesis of familial Parkinson's disease. Parkin shares sequence homology with other UBC8 binding proteins such as HHARI and H7-AP1.

REFERENCES

1. Ciechanover, A. 1994. The ubiquitin-proteasome proteolytic pathway. *Cell* 79: 13-21.
2. Ciechanover, A., et al. 1994. The ubiquitin-mediated proteolytic pathway: mechanisms of recognition of the proteolytic substrate and involvement in the degradation of native cellular proteins. *FASEB J.* 8: 182-191.
3. Hochstrasser, M. 1995. Ubiquitin, proteasomes and the regulation of intracellular protein degradation. *Curr. Opin. Cell Biol.* 7: 215-223.
4. Kimura, M., et al. 1997. cDNA cloning, characterization, and chromosome mapping of UBE2E2 encoding a human ubiquitin-conjugating E2 enzyme. *Cytogenet. Cell Genet.* 78: 107-111.

CHROMOSOMAL LOCATION

Genetic locus: Ube2l6 (mouse) mapping to 2 D.

SOURCE

UBC8 (E-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 11-42 near the N-terminus of UBC8 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

UBC8 (E-5) is available conjugated to agarose (sc-166276 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166276 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166276 PE), fluorescein (sc-166276 FITC), Alexa Fluor® 488 (sc-166276 AF488), Alexa Fluor® 546 (sc-166276 AF546), Alexa Fluor® 594 (sc-166276 AF594) or Alexa Fluor® 647 (sc-166276 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166276 AF680) or Alexa Fluor® 790 (sc-166276 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166276 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

UBC8 (E-5) is recommended for detection of UBC8 of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 UBC8 siRNA (m): sc-41686, UBC8 shRNA Plasmid (m): sc-41686-SH and UBC8 shRNA (m) Lentiviral Particles: sc-41686-V.

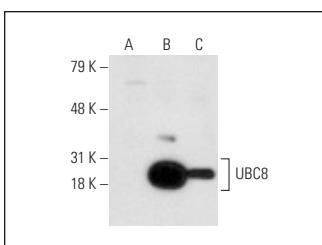
Molecular Weight of UBC8: 19 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, A-10 cell lysate: sc-3806 or UBC8 (m2): 293T Lysate: sc-110178.

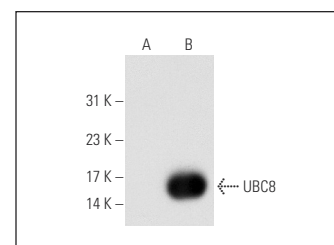
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



UBC8 (E-5): sc-166276. Western blot analysis of UBC8 expression in non-transfected 293T: sc-117752 (A), mouse UBC8 transfected 293T: sc-110178 (B) and KNRK (C) whole cell lysates.



UBC8 (E-5): sc-166276. Western blot analysis of UBC8 expression in non-transfected: sc-117752 (A) and mouse UBC8 transfected 293T: sc-127736 (B) 293T whole cell lysates.

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 for detailed protocols and support products.