SANTA CRUZ BIOTECHNOLOGY, INC.

UBC8 (N-20): sc-16196

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 proteosome 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 subtrate 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.
5. Moynihan, T.P., et al. 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.
6. Tan, N.G., et al. 2000. Characterisation of the human and mouse orthologues of the *Drosophila* ariadne gene. Cytogenet. Cell Genet. 90: 242-245.
7. Zhang, Y., et al. 2000. Parkin functions as an E2-dependent ubiquitin-protein ligase and promotes the degradation of the synaptic vesicle-associated protein, CDCrel-1. Proc. Natl. Acad. Sci. USA 97: 13354-13359.

CHROMOSOMAL LOCATION

Genetic locus: UBE2L6 (human) mapping to 11q12.

SOURCE

UBC8 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of UBC8 of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-16196 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

UBC8 (N-20) is recommended for detection of UBC8 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (h): sc-41685, UBC8 shRNA Plasmid (h): sc-41685-SH and UBC8 shRNA (h) Lentiviral Particles: sc-41685-V.

Molecular Weight of UBC8: 19 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.