

UBE2Q2 (R-16): sc-100625

BACKGROUND

UBE2Q2 (ubiquitin-conjugating enzyme E2 Q2) is a 375 amino acid cytoplasmic protein that is 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, UBE2Q2 is an E2 ubiquitin-conjugating enzyme that acts to catalyze the covalent attachment of ubiquitin residues to various proteins. UBE2Q2 expression is detected in invasive epithelial tissue and tumor masses including head and neck squamous cell carcinomas, suggesting a role for UBE2Q2 in carcinogenesis. Two isoforms of UBE2Q2 exist due to alternative splicing events.

REFERENCES

- Schulze, E., et al. 2003. The maintenance of neuromuscular function requires UBC-25 in *Caenorhabditis elegans*. *Biochem. Biophys. Res. Commun.* 305: 691-699.
- Melner, M.H., et al. 2004. Differential expression of genes in the endometrium at implantation: upregulation of a novel member of the E2 class of ubiquitin-conjugating enzymes. *Biol. Reprod.* 70: 406-414.
- Zhang, Y.W., et al. 2005. Genotoxic stress targets human Chk1 for degradation by the ubiquitin-proteasome pathway. *Mol. Cell* 19: 607-618.
- Melner, M.H., et al. 2006. Demonstration of ubiquitin thiolester formation of UBE2Q2 (UBCi), a novel ubiquitin-conjugating enzyme with implantation site-specific expression. *Biol. Reprod.* 75: 395-406.
- Seghatoleslam, A., et al. 2006. Analysis of a novel human gene, LOC92912, overexpressed in hypopharyngeal tumours. *Biochem. Biophys. Res. Commun.* 339: 422-429.
- Banerjee, S., et al. 2007. Inactivation of the ubiquitin conjugating enzyme UBE2Q2 causes a prophase arrest and enhanced apoptosis in response to microtubule inhibiting agents. *Oncogene* 26: 6509-6517.

CHROMOSOMAL LOCATION

Genetic locus: UBE2Q2 (human) mapping to 15q24.2.

SOURCE

UBE2Q2 (R-16) is a mouse monoclonal antibody raised against recombinant UBE2Q2 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

UBE2Q2 (R-16) is recommended for detection of UBE2Q2 of human origin by Western Blotting (starting dilution 1:200, 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 UBE2Q2 siRNA (h): sc-76792, UBE2Q2 shRNA Plasmid (h): sc-76792-SH and UBE2Q2 shRNA (h) Lentiviral Particles: sc-76792-V.

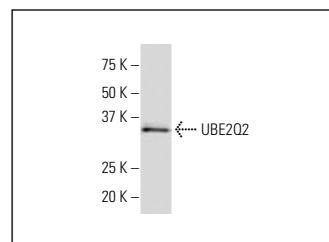
Molecular Weight of UBE2Q2: 46 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

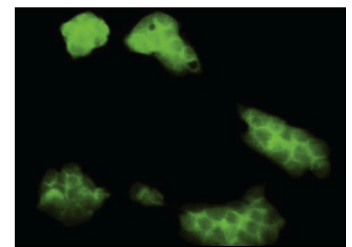
RECOMMENDED SUPPORT REAGENTS

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



UBE2Q2 (R-16): sc-100625. Western blot analysis of UBE2Q2 expression in A-431 whole cell lysate.



UBE2Q2 (R-16): sc-100625. Immunofluorescence staining of paraformaldehyde-fixed A-431 cells showing cytoplasmic localization.

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.