

UBQLN3 (E-12): sc-169744

BACKGROUND

Ubiquitin (Ub) is among the most phylogenetically conserved proteins known. The primary function of this small, 76 amino acid protein is to clear abnormal, foreign and improperly folded proteins by targeting them for degradation by the 26S proteasome. Many ubiquitin-like proteins function as post-translational protein modifiers, such as members of the SUMO protein family, however some ubiquitin-like proteins regulate protein-protein interactions and cell cycle events, thereby functioning outside of the traditional ubiquitination pathway. UBQLN3 (Ubiquilin-3) is a 654 amino acid protein containing one N-terminal ubiquitin-like (UBQ) domain and one C-terminal UBA domain. With expression limited to testis, it has been suggested that UBQLN3 may associate with testis-specific cyclin A1 and/or cyclin A to regulate the cell cycle during spermatogenesis. Similarly, a family member related to UBQLN3, namely PLIC-1, also known as Ubiquilin-1, may also play a critical role in cell cycle regulation.

REFERENCES

- Conklin, D., et al. 2000. Molecular cloning, chromosome mapping and characterization of UBQLN3 a testis-specific gene that contains an ubiquitin-like domain. *Gene* 249: 91-98.
- Bulger, M., et al. 2000. Comparative structural and functional analysis of the olfactory receptor genes flanking the human and mouse β -globin gene clusters. *Proc. Natl. Acad. Sci. USA* 97: 14560-14565.
- Su, H.L., et al. 2002. Molecular features of human ubiquitin-like SUMO genes and their encoded proteins. *Gene* 296: 65-73.
- Glickman, M.H., et al. 2002. The ubiquitin-proteasome proteolytic pathway: destruction for the sake of construction. *Physiol. Rev.* 82: 373-428.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605473. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Bensemain, F., et al. 2006. Association study of the ubiquilin gene with Alzheimer's disease. *Neurobiol. Dis.* 22: 691-693.
- Golan, M.P., et al. 2008. Analysis of UBQLN1 variants in a Polish Alzheimer's disease patient: control series. *Dement. Geriatr. Cogn. Disord.* 25: 366-371.

CHROMOSOMAL LOCATION

Genetic locus: UBQLN3 (human) mapping to 11p15.4.

SOURCE

UBQLN3 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of UBQLN3 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-169744 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

UBQLN3 (E-12) is recommended for detection of UBQLN3 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); non cross-reactive with UBQLN1.

Suitable for use as control antibody for UBQLN3 siRNA (h): sc-96317, UBQLN3 shRNA Plasmid (h): sc-96317-SH and UBQLN3 shRNA (h) Lentiviral Particles: sc-96317-V.

Molecular Weight of UBQLN3: 71 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.

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 or our catalog for detailed protocols and support products.