

UBQLNL (T-17): sc-249202

BACKGROUND

Ubiquitin is a 77 amino acid protein that targets proteins for degradation by the 26S proteasome. Ubiquitin-like (UBL) proteins are not directly involved in protein degradation, but appear to have many mechanistic similarities with the ubiquitin pathway. UBQLNL (ubiquilin-like protein) is a 475 amino acid protein that contains a ubiquitin-like domain. There are two different isoforms of UBQLNL that are produced as a result of alternative splicing events. UBQLNL shares significant sequence similarity with PLIC-1, also known as ubiquilin-1, a protein that associates with proteasomes and two different E3 ubiquitin ligase enzymes. These associations suggest that PLIC-1 may link ubiquitination machinery and proteasomes for *in vivo* protein degradation. PLIC-1 is a cytoplasmic protein that associates with the DAN gene product and may play a critical role in cell cycle regulation. It also interacts with two proteins linked to early-onset Alzheimer's disease, presenilin-1 and presenilin-2, and promotes accumulation of the presenilin proteins. PLIC-1 is abundant in neurons of healthy brain, neurofibrillary tangles in Alzheimer's-diseased brain and Lewy bodies of Parkinson-diseased brain.

REFERENCES

- Ozaki, T., et al. 1997. Identification of a new cellular protein that can interact specifically with DAN. *DNA Cell Biol.* 16: 985-991.
- Wu, A.L., et al. 1999. Ubiquitin-related proteins regulate interaction of vimentin intermediate filaments with the plasma membrane. *Mol. Cell* 4: 619-625.
- Kaye, F.J., et al. 2000. A family of ubiquitin-like proteins binds the ATPase domain of Hsp70-like Stch. *FEBS Lett.* 467: 348-355.
- Mah, A.L., et al. 2000. Identification of ubiquilin, a novel presenilin interactor that increases presenilin protein accumulation. *J. Cell Biol.* 151: 847-862.
- Hanaoka, E., et al. 2000. Molecular cloning and expression analysis of the human DA41 gene and its mapping to chromosome 9q21.2-q21.3. *J. Hum. Genet.* 45: 188-191.
- Kleijnen, M.F., et al. 2000. The hPLIC proteins may provide a link between the ubiquitination machinery and the proteasome. *Mol. Cell* 6: 409-419.
- Hayes, M.G., et al. 2007. Identification of type 2 diabetes genes in Mexican Americans through genome-wide association studies. *Diabetes* 56: 3033-3044.

CHROMOSOMAL LOCATION

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

SOURCE

UBQLNL (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of UBQLNL 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.

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-249202 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

UBQLNL (T-17) is recommended for detection of UBQLNL 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 UBQLN3.

Suitable for use as control antibody for UBQLNL siRNA (h): sc-96773, UBQLNL shRNA Plasmid (h): sc-96773-SH and UBQLNL shRNA (h) Lentiviral Particles: sc-96773-V.

Molecular Weight of UBQLNL isoform 1/2: 52/29 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.

PROTOCOLS

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