

# UBQLN3 (G-9): sc-376548

## 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

1. 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.
2. Bulger, M., et al. 2000. Comparative structural and functional analysis of the olfactory receptor genes flanking the human and mouse  $\beta$ -globin gene clusters. *Proc. Natl. Acad. Sci. USA* 97: 14560-14565.
3. Su, H.L. and Li, S.S. 2002. Molecular features of human ubiquitin-like SUMO genes and their encoded proteins. *Gene* 296: 65-73.

## CHROMOSOMAL LOCATION

Genetic locus: UBQLN3 (human) mapping to 11p15.4; Ubqln3 (mouse) mapping to 7 E3.

## SOURCE

UBQLN3 (G-9) is a mouse monoclonal antibody raised against amino acids 305-496 mapping within an internal region of UBQLN3 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

UBQLN3 (G-9) is available conjugated to agarose (sc-376548 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376548 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376548 PE), fluorescein (sc-376548 FITC), Alexa Fluor® 488 (sc-376548 AF488), Alexa Fluor® 546 (sc-376548 AF546), Alexa Fluor® 594 (sc-376548 AF594) or Alexa Fluor® 647 (sc-376548 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376548 AF680) or Alexa Fluor® 790 (sc-376548 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

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

## APPLICATIONS

UBQLN3 (G-9) is recommended for detection of UBQLN3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 UBQLN3 siRNA (h): sc-96317, UBQLN3 siRNA (m): sc-154872, UBQLN3 shRNA Plasmid (h): sc-96317-SH, UBQLN3 shRNA Plasmid (m): sc-154872-SH, UBQLN3 shRNA (h) Lentiviral Particles: sc-96317-V and UBQLN3 shRNA (m) Lentiviral Particles: sc-154872-V.

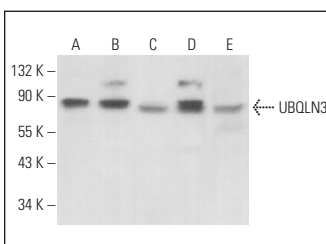
Molecular Weight of UBQLN3: 71 kDa.

Positive Controls: UBQLN3 (h2): 293T Lysate: sc-173159, Jurkat whole cell lysate: sc-2204 or CCRF-CEM cell lysate: sc-2225.

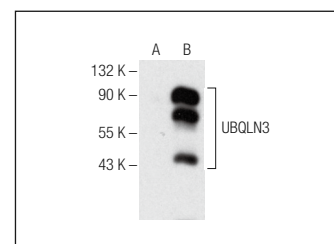
## RECOMMENDED SUPPORT REAGENTS

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



UBQLN3 (G-9): sc-376548. Western blot analysis of UBQLN3 expression in Jurkat (A), CCRF-CEM (B), BYDP (C), TK-1 (D) and 3611-RF (E) whole cell lysates.



UBQLN3 (G-9): sc-376548. Western blot analysis of UBQLN3 expression in non-transfected: sc-117752 (A) and human UBQLN3 transfected: sc-173159 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Shah, P.P., et al. 2023. UBQLN family members regulate MYC in lung adenocarcinoma cells. *Cancers* 15: 3389.

## RESEARCH USE

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