

# Ubr4 (21-Y): sc-100615



The Power to Question

## BACKGROUND

Ubr4 (ubiquitin protein ligase E3 component N-recognin 4), also known as p600, ZUBR1 or RBAF600 is a 5,183 amino acid multi-pass membrane protein that is concentrated at the edge of membrane structures that participate in Actin motility. Involved in protein degradation events, Ubr4 functions as an E3 ubiquitin-protein ligase that recognizes and binds proteins that contain specific N-terminal residues, thereby tagging the target proteins for ubiquitination and subsequent degradation. Additionally, Ubr4 interacts with Clathrin and forms meshwork structures that are used during cytoskeletal organization and morphogenesis. Ubr4 contains one Ubr-type zinc finger and is also thought to play a role in Integrin-mediated signaling pathways. Six isoforms of Ubr4 exist due to alternative splicing events.

## REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609890. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Tasaki, T., et al. 2005. A family of mammalian E3 ubiquitin ligases that contain the Ubr box motif and recognize N-degrons. *Mol. Cell. Biol.* 25: 7120-7136.
3. Huh, K.W., et al. 2005. Association of the human papillomavirus type 16 E7 oncoprotein with the 600 kDa retinoblastoma protein-associated factor, p600. *Proc. Natl. Acad. Sci. USA* 102: 11492-11497.
4. Nakatani, Y., et al. 2005. p600, a unique protein required for membrane morphogenesis and cell survival. *Proc. Natl. Acad. Sci. USA* 102: 15093-15098.
5. Tasaki, T., et al. 2007. Biochemical and genetic studies of Ubr3, a ubiquitin ligase with a function in olfactory and other sensory systems. *J. Biol. Chem.* 282: 18510-18520.
6. Shim, S.Y., et al. 2008. Protein 600 is a microtubule/endoplasmic reticulum-associated protein in CNS neurons. *J. Neurosci.* 28: 3604-3614.
7. Lee, M.J., et al. 2008. Synthetic heterovalent inhibitors targeting recognition E3 components of the N-end rule pathway. *Proc. Natl. Acad. Sci. USA* 105: 100-105.

## CHROMOSOMAL LOCATION

Genetic locus: UBR4 (human) mapping to 1p36.13; Ubr4 (mouse) mapping to 4 D3.

## SOURCE

Ubr4 (21-Y) is a mouse monoclonal antibody raised against recombinant Ubr4 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

Ubr4 (21-Y) is recommended for detection of Ubr4 of mouse, rat and 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 Ubr4 siRNA (h): sc-78618, Ubr4 siRNA (m): sc-154875, Ubr4 shRNA Plasmid (h): sc-78618-SH, Ubr4 shRNA Plasmid (m): sc-154875-SH, Ubr4 shRNA (h) Lentiviral Particles: sc-78618-V and Ubr4 shRNA (m) Lentiviral Particles: sc-154875-V.

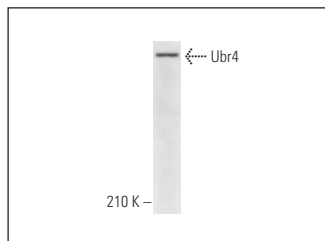
Molecular Weight of Ubr4: 600 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

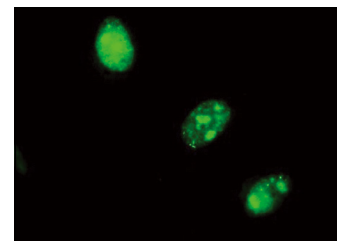
## RECOMMENDED SUPPORT REAGENTS

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



Ubr4 (21-Y): sc-100615. Western blot analysis of Ubr4 expression in HeLa whole cell lysate.



Ubr4 (21-Y): sc-100615. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

## SELECT PRODUCT CITATIONS

1. Singh, A., et al. 2023. Disruption in networking of KCMF1 linked ubiquitin ligase impairs autophagy in CD8<sup>+</sup> memory T cells of patients with renal cell carcinoma. *Cancer Lett.* 564: 216194.

## 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](http://www.scbt.com) for detailed protocols and support products.