SANTA CRUZ BIOTECHNOLOGY, INC.

UBXN2B (S-15): sc-241726

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The Power to Question

BACKGROUND

The UBX (ubiquitin regulatory X) domain is an 80 amino acid motif that is usually present on the carboxy-terminus of certain eukaryotic proteins. UBX domain-containing proteins (UBXD), such as FAF1, p33ING1 and D8S2298E, are typically involved in ubiquitin-related processes. UBXD proteins also constitute the largest family of VCP cofactors and are generally involved in substrate recruitment to VCP, as well as regulation of its activity. UBXD2B (UBX domain-containing protein 2B), also known as NSFL1 cofactor p37 and p97 cofactor p37, is a 331 amino acid protein that contains one UBX domain and one SEP domain. UBXN2B is required for ER and Golgi biogenesis and also plays a role in their maintenance during interphase, as well as their reassembly at the end of mitosis. Through interaction with VCP, UBXN2B forms a complex that has membrane fusion activity.

REFERENCES

1. Buchberger, A. 2002. From UBA to UBX: new words in the ubiquitin vocabulary. Trends Cell Biol. 12: 216-221.
2. Dreveny, I., Kondo, H., Uchiyama, K., Shaw, A., Zhang, X. and Freemont, P.S. 2004. Structural basis of the interaction between the AAA ATPase p97/VCP and its adaptor protein p47. EMBO J. 23: 1030-1039.
3. Latterich, M. 2006. p97 adaptor choice regulates organelle biogenesis. Dev. Cell 11: 755-757.
4. Uchiyama, K., Totsukawa, G., Puhka, M., Kaneko, Y., Jokitalo, E., Dreveny, I., Beuron, F., Zhang, X., Freemont, P. and Kondo, H. 2006. p37 is a p97 adaptor required for Golgi and ER biogenesis in interphase and at the end of mitosis. Dev. Cell 11: 803-816.
5. Tang, D., Mar, K., Warren, G. and Wang, Y. 2008. Molecular mechanism of mitotic Golgi disassembly and reassembly revealed by a defined reconstitution assay. J. Biol. Chem. 283: 6085-6094.
6. Kaneko, Y., Tamura, K., Totsukawa, G. and Kondo, H. 2010. Phosphorylation of p37 is important for Golgi disassembly at mitosis. Biochem. Biophys. Res. Commun. 402: 37-41.

CHROMOSOMAL LOCATION

Genetic locus: UBXN2B (human) mapping to 8q12.1; Ubxn2b (mouse) mapping to 4 A1.

SOURCE

UBXN2B (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of UBXN2B of human origin.

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-241726 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

UBXN2B (S-15) is recommended for detection of UBXN2B of mouse, rat and 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 UBXD4.

UBXN2B (S-15) is also recommended for detection of UBXN2B in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for UBXN2B siRNA (m): sc-108896, UBXN2B shRNA Plasmid (m): sc-108896-SH and UBXN2B shRNA (m) Lentiviral Particles: sc-108896-V.

Molecular Weight of UBXN2B: 37 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.

PROTOCOLS

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