SANTA CRUZ BIOTECHNOLOGY, INC.

NSFL1C p47 (D-9): sc-365215

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NSFL1C p47, also known as p47, NSFL1C, UBX1, UBXD10 or UBXN2C, is a 370 amino acid protein that localizes to both the nucleus and the Golgi apparatus (specifically to Golgi stacks) and contains one SEP domain and one UBX domain. Functioning as part of a ternary complex with VCP (a protein involved in the heterotypic fusion of transport vesicles with their target membranes) and Syntaxin 5, NSFL1C p47 interacts with and reduces the ATPase activity of VCP and is required for the fragmentation of Golgi stacks during mitosis and for subsequent reassembly of Golgi stacks after mitosis. NSFL1C p47 is subject to phosphorylation during mitosis, which inhibits NSFL1C p47-Golgi interaction and is, therefore, required for proper Golgi stack formation and cisternal regrowth. Human NSFL1C p47 shares 89% sequence identity with its mouse counterpart, suggesting a conserved role between species. Multiple isoforms of NSFL1C p47 exist due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: NSFL1C (human) mapping to 20p13; Nsfl1c (mouse) mapping to 2 G3.

SOURCE

NSFL1C p47 (D-9) is a mouse monoclonal antibody raised against amino acids 1-85 mapping at the N-terminus of NSFL1C p47 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NSFL1C p47 (D-9) is available conjugated to agarose (sc-365215 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365215 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365215 PE), fluorescein (sc-365215 FITC), Alexa Fluor® 488 (sc-365215 AF488), Alexa Fluor® 546 (sc-365215 AF546), Alexa Fluor® 594 (sc-365215 AF594) or Alexa Fluor® 647 (sc-365215 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365215 AF680) or Alexa Fluor® 790 (sc-365215 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

NSFL1C p47 (D-9) is recommended for detection of NSFL1C p47 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), immunohistochemistry (including paraffin-embedded sections) (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 NSFL1C p47 siRNA (h): sc-76032, NSFL1C p47 siRNA (m): sc-151963, NSFL1C p47 shRNA Plasmid (h): sc-76032-SH, NSFL1C p47 shRNA Plasmid (m): sc-151963-SH, NSFL1C p47 shRNA (h) Lentiviral Particles: sc-76032-V and NSFL1C p47 shRNA (m) Lentiviral Particles: sc-151963-V.

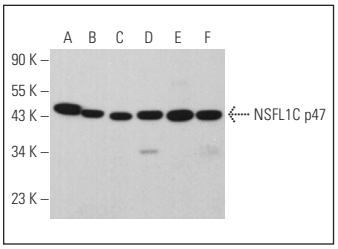
Molecular Weight of NSFL1C p47: 47 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

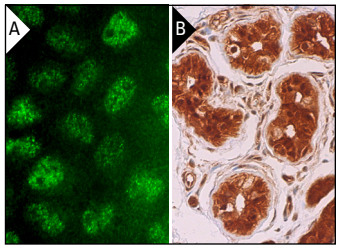
STORAGE

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

DATA



NSFL1C p47 (D-9): sc-365215. Western blot analysis of NSFL1C p47 expression in HeLa (**A**), Jurkat (**B**), BYDP (**C**), IB4 (**D**), c4 (**E**) and C6 (**F**) whole cell lysates.



NSFL1C p47 (D-9): sc-365215. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human sweat gland tissue showing nuclear and cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Myeku, N., et al. 2012. cAMP stimulates the ubiquitin/proteasome pathway in rat spinal cord neurons. Neurosci. Lett. 527: 126-131.
2. Yang, X.H., et al. 2015. Rosiglitazone via PPARγ-dependent suppression of oxidative stress attenuates endothelial dysfunction in rats fed homocysteine thiolactone. J. Cell. Mol. Med. 19: 826-835.
3. Yi, L. and Kaler, S.G. 2018. Interaction between the AAA ATPase p97/VCP and a concealed UBX domain in the copper transporter ATP7A is associated with motor neuron degeneration. J. Biol. Chem. 293: 7606-7617.
4. Wu, H., et al. 2020. Breaking the vicious loop between inflammation, oxidative stress and coagulation, a novel anti-thrombus insight of nattokinase by inhibiting LPS-induced inflammation and oxidative stress. Redox Biol. 32: 101500.
5. Guo, Y., et al. 2021. D-4F ameliorates contrast media-induced oxidative injuries in endothelial cells via the AMPK/PKC pathway. Front. Pharmacol. 11: 556074.
6. Wang, D., et al. 2021. ATM-phosphorylated SPOP contributes to 53BP1 exclusion from chromatin during DNA replication. Sci. Adv. 7: eabd9208.
7. Kaneko, Y., et al. 2021. p97 and p47 function in membrane tethering in cooperation with FTCD during mitotic Golgi reassembly. EMBO J. 40: e105853.
8. Wu, H., et al. 2023. Crocetin antagonizes parthanatos in ischemic stroke via inhibiting NOX2 and preserving mitochondrial hexokinase-I. Cell Death Dis. 14: 50.

RESEARCH USE

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