SANTA CRUZ BIOTECHNOLOGY, INC.

p47 (E-16): sc-86190

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

p47, also known as 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, 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. p47 is subject to phosphorylation during mitosis, which inhibits p47-Golgi interaction and is, therefore, required for proper Golgi stack formation and cisternal regrowth. Human p47 shares 89% sequence identity with its mouse counterpart, suggesting a conserved role between species. Multiple isoforms of p47 exist due to alternative splicing events.

CHROMOSOMAL LOCATION

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

SOURCE

p47 (E-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of p47 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, ready P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

p47 (E-16) is recommended for detection of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p47 (E-16) is also recommended for detection of p47 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for p47 siRNA (h): sc-76032, p47 siRNA (m): sc-151963, p47 shRNA Plasmid (h): sc-76032-SH, p47 shRNA Plasmid (m): sc-151963-SH, p47 shRNA (h) Lentiviral Particles: sc-76032-V and p47 shRNA (m) Lentiviral Particles: sc-151963-V.

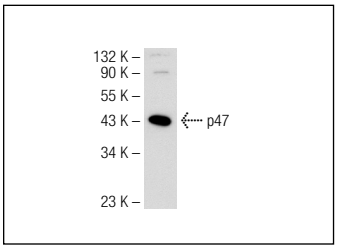
Molecular Weight of p47: 47 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209 or 293T whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



p47 (E-16): sc-86190. Western blot analysis of p47 expression in 293T whole cell lysate.

SELECT PRODUCT CITATIONS

1. García-Ruiz, I., et al. 2014. High-fat diet decreases activity of the oxidative phosphorylation complexes and causes nonalcoholic steatohepatitis in mice. Dis. Model. Mech. 7: 1287-1296.
2. Garcia-Ruiz, I., et al. 2015. *In vitro* treatment of Hep G2 cells with saturated fatty acids reproduces mitochondrial dysfunction found in nonalcoholic steatohepatitis. Dis. Model. Mech. 8: 183-191.

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.

MONOS Satisfaction Guaranteed

Try **p47 (D-9): sc-365215** or **p47 (E-7): sc-376614**, our highly recommended monoclonal aternatives to p47 (E-16).