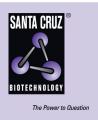
SANTA CRUZ BIOTECHNOLOGY, INC.

PPAPDC3 (P-17): sc-248296



BACKGROUND

PPAPDC3 (phosphatidic acid phosphatase type 2 domain containing 3), also known as NET39 or probable lipid phosphate phosphatase PPAPDC3, is a 271 amino acid multi-pass membrane protein that belongs to the PA-phosphatase related phosphoesterase family. Localizing to nucleus envelope and endoplasmic reticulum membrane, PPAPDC3 is oriented so that both N- and C-terminals are exposed to cytoplasm/nucleoplasm. Highly expressed in cardiac and skeletal muscle tissues, PPAPDC3 functions as a negative regulator of myoblast differentiation, partly through effects on FRAP signaling. PPAPDC3 controls FRAP-dependent IGF-II expression during differentiation and likely operates as part of the regulatory machinery for myogenesis. PPAPDC3 may also be involved in muscle homeostasis activity. The gene that encodes PPA-PDC3 maps to human chromosome 9q34.11.

REFERENCES

- 1. Chen, I.H., et al. 2006. Nuclear envelope transmembrane proteins (NETs) that are up-regulated during myogenesis. BMC Cell Biol. 7: 38.
- Liu, G.H., et al. 2009. Regulation of myoblast differentiation by the nuclear envelope protein NET39. Mol. Cell. Biol. 29: 5800-5812.
- Port, M., et al. 2009. A gene signature of primary tumor identifies metastasized seminoma. Urol. Oncol. 29:764-773
- Malik, P., et al. 2010. Cell-specific and lamin-dependent targeting of novel transmembrane proteins in the nuclear envelope. Cell. Mol. Life Sci. 67: 1353-1369.
- Miriyala, S., et al. 2010. Functional characterization of the atypical integral membrane lipid phosphatase PDP1/PPAPDC2 identifies a pathway for interconversion of isoprenols and isoprenoid phosphates in mammalian cells. J. Biol. Chem. 285: 13918-13929.
- Chin, L.T., et al. 2010. A proteomics-based translational approach reveals an antifolate resistance inherent in human plasma derived from blood donation. J. Proteome Res. 9: 3091-3102.

CHROMOSOMAL LOCATION

Genetic locus: PPAPDC3 (human) mapping to 9q34.13; Ppapdc3 (mouse) mapping to 2 B.

SOURCE

PPAPDC3 (P-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of PPAPDC3 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-248296 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

PPAPDC3 (P-17) is recommended for detection of PPAPDC3 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 PPAPDC2.

PPAPDC3 (P-17) is also recommended for detection of PPAPDC3 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for PPAPDC3 siRNA (h): sc-92580, PPAPDC3 siRNA (m): sc-152404, PPAPDC3 shRNA Plasmid (h): sc-92580-SH, PPAPDC3 shRNA Plasmid (m): sc-152404-SH, PPAPDC3 shRNA (h) Lentiviral Particles: sc-92580-V and PPAPDC3 shRNA (m) Lentiviral Particles: sc-152404-V.

Molecular Weight of PPAPDC3: 29 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) Immunofluo-rescence: 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.

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.