



HTPAP (P-13): sc-87160

BACKGROUND

PAP (phosphatidate phosphatase) enzymes are involved in lipid synthesis and in the degradation or generation of molecules that are involved in lipid signaling. HTPAP is also known as PPAPDC1B (phosphatidic acid phosphatase type 2 domain containing 1B) or DPPL1 and is a 223 amino acid protein that is localized to the cellular membrane. HTPAP is a multi-pass membrane protein which is thought to possess six transmembrane spanning domains and is expressed as two isoforms. HTPAP is a member of the PAP related phosphoesterase family and the gene encoding HTPAP is highly conserved among many species. HTPAP functions as a PAP for lipid phosphate substrates, including PA (phosphatidate), LPA (lysophosphatidate) and DGPP (diacylglycerol pyrophosphate), but preferentially targets DGPP. Breast cancer tumors, specifically those in which ER (estrogen receptor) is present in high amounts, exhibit upregulation of the gene which encodes HTPAP and HTPAP is thought to increase ER activity. Due to the overexpression of HTPAP in ductal breast carcinomas and the observation that, in cases of lower HTPAP expression, tumors grew slower, HTPAP is thought to be an oncogene. In contrast, the gene encoding HTPAP is downregulated in HCC (hepatocellular carcinoma) and is thought to inhibit lung metastasis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PPAPDC1B (human) mapping to 8p12; Ppapdc1b (mouse) mapping to 8 A2.

SOURCE

HTPAP (P-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of HTPAP of human origin.

RESEARCH USE

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

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, sc-87160 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HTPAP (P-13) is recommended for detection of HTPAP of mouse and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HTPAP siRNA (h): sc-77623, HTPAP siRNA (m): sc-146112, HTPAP shRNA Plasmid (h): sc-77623-SH, HTPAP shRNA Plasmid (m): sc-146112-SH, HTPAP shRNA (h) Lentiviral Particles: sc-77623-V and HTPAP shRNA (m) Lentiviral Particles: sc-146112-V.

Molecular Weight of HTPAP: 29 kDa.

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) 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.

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.