

CHPT1 (N-13): sc-242437

BACKGROUND

CHPT1 (cholinephosphotransferase 1), also known as AAPT1-like protein and Diacylglycerol cholinephosphotransferase 1, is a 406 amino acid multi-pass membrane protein that is localized to the Golgi apparatus. By catalyzing the phosphatidylcholine biosynthesis from CDP-choline, it plays an essential role in the formation and maintenance of vesicular membranes. CHPT1 is most abundant in testis, as well as small intestine, heart, colon, spleen and prostate. Expression of CHPT1 is increased in cancerous breast cells as compared to normal breast cell lines and it has been determined that the CHPT1 gene exhibits mutations within the cancerous cells. Interestingly, exposure to mustard gas significantly decreases CHPT1 gene expression and activity, an event that may play an important role in the development of acute respiratory distress syndrome (ARDS). There are two isoforms of CHPT1 that are produced as a result of alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: CHPT1 (human) mapping to 12q23.2; Chpt1 (mouse) mapping to 10 C1.

SOURCE

CHPT1 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CHPT1 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-242437 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

CHPT1 (N-13) is recommended for detection of CHPT1 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).

CHPT1 (N-13) is also recommended for detection of CHPT1 in additional species, including canine and bovine.

Suitable for use as control antibody for CHPT1 siRNA (h): sc-95799, CHPT1 siRNA (m): sc-142334, CHPT1 shRNA Plasmid (h): sc-95799-SH, CHPT1 shRNA Plasmid (m): sc-142334-SH, CHPT1 shRNA (h) Lentiviral Particles: sc-95799-V and CHPT1 shRNA (m) Lentiviral Particles: sc-142334-V.

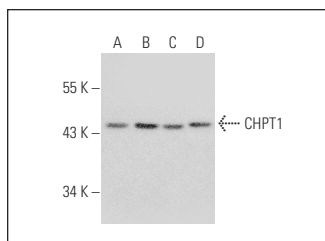
Molecular Weight of CHPT1: 45/24 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or MDA-MB-435S whole cell lysate: sc-364184.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



CHPT1 (N-13): sc-242437. Western blot analysis of CHPT1 expression in HeLa (A), K-562 (B), MDA-MB-435S (C) and Jurkat (D) whole cell lysates.

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.

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Try **CHPT1 (F-7): sc-515577**, our highly recommended monoclonal alternative to CHPT1 (N-13).