

PTCD3 (I-16): sc-162047

BACKGROUND

PTCD3 (pentatricopeptide repeat domain 3), also known as TRG15 (transformation-related gene 15 protein), is a 689 amino acid protein that contains 10 PPR (pentatricopeptide) repeats and belongs to the PTCD3 family. Localized to the mitochondrion, PTCD3 is encoded by a gene that maps to chromosome 2 and is expressed as two alternatively spliced isoforms. The second largest human chromosome, chromosome 2 encodes over 1,400 genes and comprises nearly 8% of the human genome, housing a number of disease-associated genes. Harlequin ichthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene, while the lipid metabolic disorder sitosterolemia is associated with defects in the ABCG5 and ABCG8 genes. Additionally, an extremely rare recessive genetic disorder, Alström syndrome, is caused by mutations in the ALMS1 gene, which maps to chromosome 2.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PTCD3 (human) mapping to 2p11.2; Ptc3 (mouse) mapping to 6 C1.

SOURCE

PTCD3 (I-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PTCD3 of human origin.

STORAGE

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

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-162047 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PTCD3 (I-16) is recommended for detection of PTCD3 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); non cross-reactive with PTCD1 or PTCD2.

PTCD3 (I-16) is also recommended for detection of PTCD3 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for PTCD3 siRNA (h): sc-94457, PTCD3 siRNA (m): sc-152573, PTCD3 shRNA Plasmid (h): sc-94457-SH, PTCD3 shRNA Plasmid (m): sc-152573-SH, PTCD3 shRNA (h) Lentiviral Particles: sc-94457-V and PTCD3 shRNA (m) Lentiviral Particles: sc-152573-V.

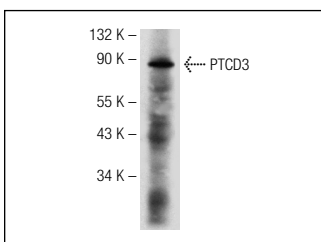
Molecular Weight of PTCD3: 79 kDa.

Positive Controls: T-47D cell lysate: sc-2293 or mouse heart extract: sc-2254.

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



PTCD3 (I-16): sc-162047. Western blot analysis of PTCD3 expression mouse heart tissue extract.

RESEARCH USE

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