

PHKG2 (E-12): sc-54295

BACKGROUND

PHKG2 (phosphorylase kinase subunit γ 2), also known as PHK γ testis/liver isoform (PHK- γ -T) or PSK-C3, is a subunit of phosphorylase kinase (PHK). PHK is a hexadecameric protein composed of four α chains, four β chains, four γ chains and four δ chains. The γ chains are catalytic chains, the α and β chains are regulatory chains and the δ chains are calmodulins. PHKG2 is an isozyme of the γ chain and is expressed in testis, liver and possibly other non-muscle tissues. It contains one protein kinase domain and belongs to the Ser/Thr protein kinase family. As the catalytic chain of PHK, PHKG2 is responsible for catalyzing the phosphorylation and activation of glycogen phosphorylase and therefore it plays an important role in the glycogenolytic pathway. Mutations in the gene encoding PHKG2 can lead to PHK deficiency and result in glycogen storage disease type 9C (GSD9C), also known as autosomal liver glycogenosis.

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CHROMOSOMAL LOCATION

Genetic locus: PHKG2 (human) mapping to 16p11.2; Phkg2 (mouse) mapping to 7 F3.

SOURCE

PHKG2 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PHKG2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54295 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PHKG2 (E-12) is recommended for detection of PHKG2 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).

PHKG2 (E-12) is also recommended for detection of PHKG2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PHKG2 siRNA (h): sc-72305, PHKG2 siRNA (m): sc-72306, PHKG2 shRNA Plasmid (h): sc-72305-SH, PHKG2 shRNA Plasmid (m): sc-72306-SH, PHKG2 shRNA (h) Lentiviral Particles: sc-72305-V and PHKG2 shRNA (m) Lentiviral Particles: sc-72306-V.

Molecular Weight of PHKG2: 41 kDa.

Positive Controls: F9 cell lysate: sc-2245 or Ramos cell lysate: sc-2216.

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) 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.

STORAGE

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

RESEARCH USE

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