PHKG2 (phosphorylase kinase subunit γ2), 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 glycolytic pathway. Mutations in the gene encoding PHKG2 can lead to PHK deficiency and result in glycogen storage disease type 9C (GSD 9C), also known as autosomal liver glycogenosis.

REFERENCES


PRODUCT

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

APPLICATIONS

PHKG2 (H-68) 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), 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 other PHKG family members.

PHKG2 (H-68) is also recommended for detection of PHKG2 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of PHKG2: 41 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-72305, PHKG2 siRNA (m): sc-72306, PHKG2 shRNA Plasmid (h): sc-72306-SH, PHKG2 siRNA Plasmid (m): sc-72306-SH, PHKG2 shRNA (h) Lentiviral Particles: sc-72306-V and PHKG2 shRNA (m) Lentiviral Particles: sc-72306-V.

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.