

# PHKA2 (K-16): sc-79669

## BACKGROUND

PHKA2 (phosphorylase kinase,  $\alpha$  2), also known as PHKLA, XLG or PYK, is a 1,235 amino acid protein that is lipid-anchored to the cytoplasmic side of the cell membrane and belongs to the phosphorylase  $\beta$  kinase regulatory chain family. Expressed predominately in liver, but also present in other non-muscle tissues, PHKA2 exists as a component of a multi-chain polymer that functions as a phosphorylase  $\beta$  kinase and catalyzes the phosphorylation of target substrates, such as Troponin I. Defects in the gene encoding PHKA2 are the cause of glycogen storage disease type 9A (GSD9A), a metabolic disorder that results in glycogenesis (an abnormal accumulation of glycogen in tissue) and is characterized by hepatomegaly, growth retardation, muscle weakness, hypercholesterolemia, hypertriglyceridemia and fasting hyperketosis.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PHKA2 (human) mapping to Xp22.13; Phka2 (mouse) mapping to X F4.

## SOURCE

PHKA2 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PHKA2 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-79669 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PHKA2 (K-16) is recommended for detection of PHKA2 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).

PHKA2 (K-16) is also recommended for detection of PHKA2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PHKA2 siRNA (h): sc-76121, PHKA2 siRNA (m): sc-76122, PHKA2 shRNA Plasmid (h): sc-76121-SH, PHKA2 shRNA Plasmid (m): sc-76122-SH, PHKA2 shRNA (h) Lentiviral Particles: sc-76121-V and PHKA2 shRNA (m) Lentiviral Particles: sc-76122-V.

Molecular Weight of PHKA2: 138 kDa.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.