

GK2 (S-13): sc-164482

BACKGROUND

GK2 (glycerol kinase 2), also known as GKP2 or GKTA, is a 553 amino acid protein that belongs to the FGGY kinase family and is involved in the pathway of glycerol degradation. Localized to the outer membrane of the mitochondrion and expressed at high levels in testis, GK2 functions to catalyze the ATP-dependent conversion of glycerol to glycerol 3-phosphate. Via its catalytic activity, GK2 plays an essential role in the regulation of glycerol uptake and metabolism. The gene encoding GK2 maps to chromosome 4, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes. Defects in some of the genes located on chromosome 4 are associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GK2 (human) mapping to 4q21.21.

SOURCE

GK2 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GK2 of human origin.

RESEARCH USE

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

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-164482 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GK2 (S-13) is recommended for detection of GK2 of 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); non cross-reactive with other GK family members.

Suitable for use as control antibody for GK2 siRNA (h): sc-88924, GK2 shRNA Plasmid (h): sc-88924-SH and GK2 shRNA (h) Lentiviral Particles: sc-88924-V.

Molecular Weight of GK2: 61 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, mouse colon or HCT 116 whole cell lysate.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.