

GALK2 (T-14): sc-164452

BACKGROUND

Galactose kinase (GALK1), also often designated galactokinase, is important in the first step of the galactose metabolism pathway. GALK1, which belongs to the GHMP kinase family of proteins, is a crucial enzyme for galactose metabolism, specifically converting α -D-galactose to galactose 1-phosphate. Defects in the gene encoding GALK1 can cause galactosemia II, an autosomal recessive disorder characterized by congenital cataracts during infancy, often within the first two weeks of life. In the adult population, galactosemia II can cause presenile cataracts that are secondary to accumulation of galactitol in the lens of the eye. A second gene, GALK2, encodes an enzyme with greater activity against GalNAc than galactose. GALK2 has been implicated in the salvage pathway for the reutilization of free GalNAc derived from the degradation of complex carbohydrates.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GALK2 (human) mapping to 15q21.1; Galk2 (mouse) mapping to 2 F1.

SOURCE

GALK2 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GALK2 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-164452 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GALK2 (T-14) is recommended for detection of GALK2 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); non cross-reactive with GALK1.

GALK2 (T-14) is also recommended for detection of GALK2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for GALK2 siRNA (h): sc-90002, GALK2 siRNA (m): sc-145311, GALK2 shRNA Plasmid (h): sc-90002-SH, GALK2 shRNA Plasmid (m): sc-145311-SH, GALK2 shRNA (h) Lentiviral Particles: sc-90002-V and GALK2 shRNA (m) Lentiviral Particles: sc-145311-V.

Molecular Weight of GALK2: 61 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209 or mouse intestine tissue extract.

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 or our catalog for detailed protocols and support products.