

GALK2 (N-18): sc-130142

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 (N-18) is a purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of GALK2 of human origin.

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.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

GALK2 (N-18) is recommended for detection of GALK2 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

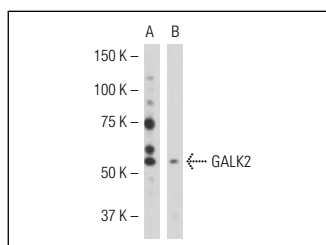
Molecular Weight of GALK2: 61 kDa.

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 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-2003 (0.5 ml agarose/2.0 ml).

DATA



GALK2 (N-18): sc-130142. Western blot analysis of GALK2 expression in HL-60 whole cell lysate (A) and mouse intestine tissue extract (B).

PROTOCOLS

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