

PFKL (C-22): sc-130226

BACKGROUND

Phosphofructokinases (PFKs) are regulatory glycolytic enzymes that catalyze the irreversible conversion of fructose-6-phosphate to fructose-1,6-bisphosphate. Mammalian PFK is a tetramer made up of diverse combinations of three isoenzymes: muscle (PFK-1), liver (PFKL) and platelet (PFKP). PFKL (phosphofructokinase, liver), also referred to as PFK-B (phosphofructo-1-kinase isozyme B), phosphofructokinase 1 or phosphohexokinase, predominates in organs with active gluconeogenesis, such as liver and kidney. Overexpression of PFKL in transgenic mice results in a diminished glucose-induced Insulin response, which suggests that PFKL may play a role in glucose-induced Insulin secretion. PFKL is expressed at high levels in Down syndrome (DS) patients, suggesting a possible role for PFKL in the pathogenesis of DS.

REFERENCES

1. Vora, S. and Francke, U. 1981. Assignment of the human gene for liver-type 6-phosphofructokinase isozyme (PFKL) to chromosome 21 by using somatic cell hybrids and monoclonal anti-L antibody. Proc. Natl. Acad. Sci. USA 78: 3738-3742.
2. Levanon, D., et al. 1986. Genomic clones of the human liver-type phosphofructokinase. Biochem. Biophys. Res. Commun. 141: 374-380.

CHROMOSOMAL LOCATION

Genetic locus: PFKL (human) mapping to 21q22.3; Pfk1 (mouse) mapping to 10 C1.

SOURCE

PFKL (C-22) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of PFKL of human origin.

PRODUCT

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

APPLICATIONS

PFKL (C-22) is recommended for detection of PFKL of mouse 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PFKL siRNA (h): sc-106400, PFKL siRNA (m): sc-152180, PFKL shRNA Plasmid (h): sc-106400-SH, PFKL shRNA Plasmid (m): sc-152180-SH, PFKL shRNA (h) Lentiviral Particles: sc-106400-V and PFKL shRNA (m) Lentiviral Particles: sc-152180-V.

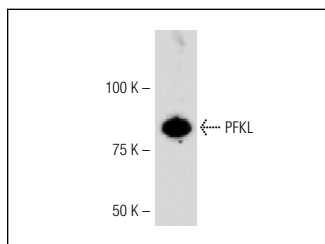
Molecular Weight of PFKL: 80 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

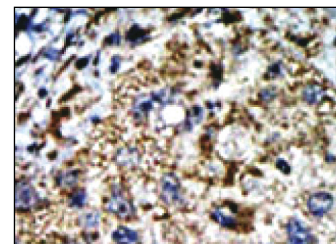
RECOMMENDED SECONDARY REAGENTS

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



PFKL (C-22): sc-130226. Western blot analysis of PFKL expression in Hep G2 whole cell lysate.



PFKL (C-22): sc-130226. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cancer tissue showing cytoplasmic staining.

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.



Try **PFKL (A-6): sc-393713** or **PFKL (YT4): sc-100542**, our highly recommended monoclonal alternatives to PFKL (C-22).