SANTA CRUZ BIOTECHNOLOGY, INC.

PYGB (BB-1F9): sc-81751

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Glycolysis is an evolutionarily conserved series of 10 chemical reactions that utilizes 11 enzymes to concomitantly generate pyruvate and ATP from glucose. Phospho-fructose kinase-2/fructose 2,6-bisphosphatase (PFK-2) stimulates the synthesis and degradation of fructose 2,6-bisphosphate. Glycogen phosphorylase (also known as GP) is an allosteric enzyme important in carbohydrate metabolism. Its activity is regulated through either noncovalent binding of metabolites or by covalent modification. Glycogen phosphorylase catalyzes the phosphorylation of glycogen to Glc-1-P. There are three genes which encode the brain, liver and muscle forms of glycogen phosphorylase: PYGB, PYGL and PYGM, respectively. Because of its fundamental role in the metabolism of glycogen, glycogen phosphorylase has been a target for the design of inhibitory compounds, which could be valuable in the therapeutic treatment of type 2 diabetes mellitus.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PYGB (human) mapping to 20p11.21.

SOURCE

PYGB (BB-1F9) is a mouse monoclonal antibody raised against human brain glycogen phosphorylase.

PRODUCT

Each vial contains 100 µg IgG1 in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PYGB (BB-1F9) is recommended for detection of PYGB of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PYGB siRNA (h): sc-105403, PYGB shRNA Plasmid (h): sc-105403-SH and PYGB shRNA (h) Lentiviral Particles: sc-105403-V.

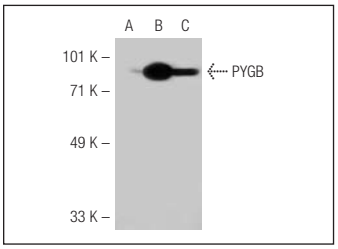
Molecular Weight of PYGB: 94 kDa.

Positive Controls: PYGB (h4): 293T Lysate: sc-158907, PYGB (h2): 293T Lysate: sc-113669 or Hep G2 cell lysate: sc-2227.

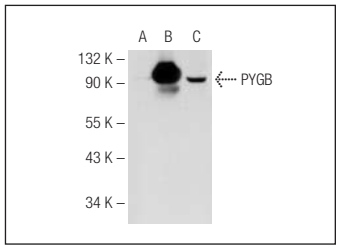
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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



PYGB (BB-1F9): sc-81751. Western blot analysis of PYGB expression in non-transfected 293T: sc-117752 (**A**), human PYGB transfected 293T: sc-113669 (**B**) and Hep G2 (**C**) whole cell lysates.



PYGB (BB-1F9): sc-81751. Western blot analysis of PYGB expression in non-transfected 293T: sc-117752 (**A**), human PYGB transfected 293T: sc-158907 (**B**) and A-673 (**C**) whole cell lysates.

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.