

PYGM (U-23): sc-130860

BACKGROUND

Glycolysis is an evolutionarily conserved series of ten 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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3. Boldt, J., Rothe, G., Schindler, E., Döll, C., Görlach, G. and Hempelmann, G. 1996. Can clonidine, enoximone, and enalaprilat help to protect the myocardium ischaemia in cardiac surgery? *Heart* 76: 207-213.
4. Krause, E.G., Rabitzsch, G., Noll, F., Mair, J. and Puschendorf, B. 1997. Glycogen phosphorylase isoenzyme BB in diagnosis of myocardial ischaemic injury and infarction. *Mol. Cell. Biochem.* 160-161: 289-295.
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6. Mair, J. 1998. Glycogen phosphorylase isoenzyme BB to diagnose ischaemic myocardial damage. *Clin. Chim. Acta* 272: 79-86.
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CHROMOSOMAL LOCATION

Genetic locus: PYGM (human) mapping to 11q13.1.

SOURCE

PYGM (U-23) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of PYGM of human origin.

PRODUCT

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

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

PYGM (U-23) is recommended for detection of PYGM 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)], 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 PYGM siRNA (h): sc-106465, PYGM shRNA Plasmid (h): sc-106465-SH and PYGM shRNA (h) Lentiviral Particles: sc-106465-V.

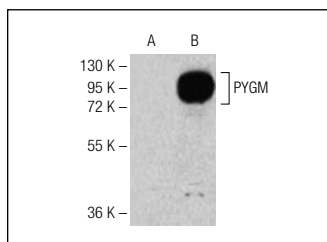
Molecular Weight of PYGM: 97 kDa.

Positive Controls: human PYGM transfected 293 whole cell lysate.

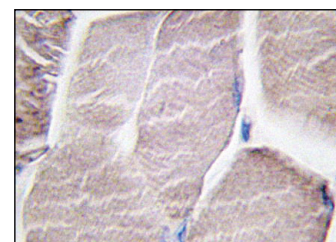
RECOMMENDED SECONDARY REAGENTS

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



PYGM (U-23): sc-130860. Western blot analysis of PYGM expression in non-transfected (A) and human PYGM transfected (B) 293 whole cell lysates.



PYGM (U-23): sc-130860. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic localization.

RESEARCH USE

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



Try **PYGB/M (9F5): sc-51929**, our highly recommended monoclonal alternative to PYGM (U-23).