SANTA CRUZ BIOTECHNOLOGY, INC.

PYGB (h2): 293T Lysate: sc-113669

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. 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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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.
5. Mair, J. 1997. Progress in myocardial damage detection: new biochemical markers for clinicians. Crit. Rev. Clin. Lab. Sci. 34: 1-66.
6. Mair, J. 1998. Glycogen phosphorylase isoenzyme BB to diagnose ischaemic myocardial damage. Clin. Chim. Acta 272: 79-86.
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8. Peetz, D., Post, F., Schinzel, H., Schweigert, R., Schollmayer, C., Steinbach, K., Dati, F., Noll, F. and Lackner, K.J. 2005. Glycogen phosphorylase BB in acute coronary syndromes. Clin. Chem. Lab. Med. 43: 1351-1358.
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STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

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

PRODUCT

PYGB (h2): 293T Lysate represents a lysate of human PYGB transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

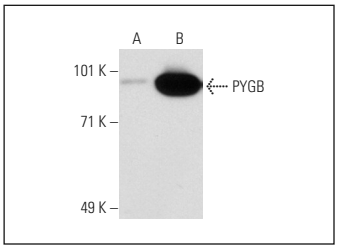
APPLICATIONS

PYGB (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive PYGB antibodies. Recommended use: 10-20 µl per lane.

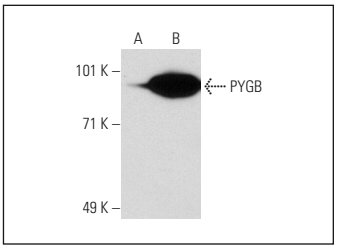
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-tranfected 293T cells.

PYGB/M (3G1): sc-51925 is recommended as a positive control antibody for Western Blot analysis of enhanced human PYGB expression in PYGB transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



PYGB/M (3G1): sc-51925. Western blot analysis of PYGB expression in non-transfected: sc-117752 (**A**) and human PYGB transfected: sc-113669 (**B**) 293T whole cell lysates.



PYGB/M (6F1): sc-51926. Western blot analysis of PYGB expression in non-transfected: sc-117752 (**A**) and human PYGB transfected: sc-113669 (**B**) 293T whole cell lysates.

RESEARCH USE

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