

PGM 1 (h): 293T Lysate: sc-114029

BACKGROUND

Phosphoglucosyltransferase, which belongs to the phosphohexose mutase family, plays a role in glycogen catabolism (glycogenolysis) as well as in the process of glycogen synthesis (glycogenesis). During glycogenolysis, PGM converts glucose-1-phosphate to glucose-6-phosphate, thus promoting glycolysis and the pentose phosphate pathway. During glycogenesis, PGM functions in the opposite manner, converting glucose-6-phosphate into glucose-1-phosphate, to facilitate glycogen synthesis. PGM has three structural loci: PGM1, PGM2 and PGM3. These three genetic forms of PGM differ in amino acid sequences but catalyze the same reactions, therefore indicating that they are isozymes. PGM1, a 562 amino acid protein, is highly polymorphic; three mutations and four intragenic recombination events between the three mutation sites generate eight protein variants. All phosphoglucosyltransferases act as monomers and bind one magnesium ion per subunit.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PGM1 (human) mapping to 1p31.3.

PRODUCT

PGM 1 (h): 293T Lysate represents a lysate of human PGM 1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

PGM 1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PGM 1 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-transfected 293T cells.

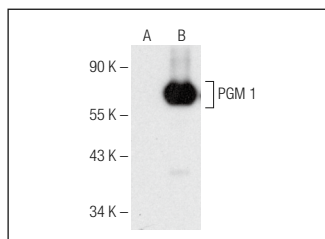
PGM 1 (D-8): sc-373796 is recommended as a positive control antibody for Western Blot analysis of enhanced human PGM 1 expression in PGM 1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

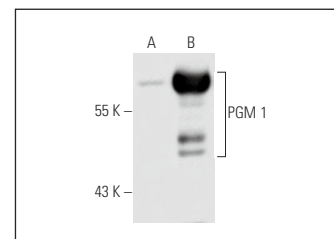
To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



PGM 1 (D-8): sc-373796. Western blot analysis of PGM 1 expression in non-transfected: sc-117752 (A) and human PGM 1 transfected: sc-114029 (B) 293T whole cell lysates.



PGM 1 (Y-173): sc-100411. Western blot analysis of PGM 1 expression in non-transfected: sc-117752 (A) and human PGM 1 transfected: sc-114029 (B) 293T whole cell lysates.

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.

RESEARCH USE

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

PROTOCOLS

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