

PGM 2L1 (S-19): sc-243783

BACKGROUND

PGM 2L1 (phosphoglucomutase 2-like 1), also known as glucose 1,6-bisphosphate synthase, PMMLP or BM32A, is a 622 amino acid cytosolic protein that belongs to the phosphohexose mutase family. Encoded by a gene that maps to human chromosome 11q13.4, PGM 2L1 is ubiquitously expressed and shares 60% amino acid sequence identity with PGM 2. Both PGM 2 and PGM 2L1 likely emerged through an ancient duplication prior to the most recent common ancestor of tetrapods and bony fishes. However, chicken lacks PGM 2L1, supporting loss of this ancient gene singularly in chicken. PGM 2L1 is mainly expressed in brain, but is also expressed in testis, thymus, spleen, lung and skeletal muscle. PGM 2L1 is largely responsible for the synthesis of elevated Glc-1,6-P(2) concentrations in brain.

REFERENCES

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2. Shin, J.H., et al. 2006. Large-scale identification of cytosolic mouse brain proteins by chromatographic prefractionation. *Electrophoresis* 27: 2799-2813.
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4. Maliekal, P., et al. 2007. Molecular identification of mammalian phosphotomutase and glucose-1,6-bisphosphate synthase, two members of the α -D-phosphohexomutase family. *J. Biol. Chem.* 282: 31844-31851.
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6. Hughes, A.L., et al. 2008. Genome size reduction in the chicken has involved massive loss of ancestral protein-coding genes. *Mol. Biol. Evol.* 25: 2681-2688.
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CHROMOSOMAL LOCATION

Genetic locus: PGM2L1 (human) mapping to 11q13.4; Pgm2l1 (mouse) mapping to 7 E3.

SOURCE

PGM 2L1 (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PGM 2L1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243783 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PGM 2L1 (S-19) is recommended for detection of PGM 2L1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with PGM 1, PGM 2 or PGM 3.

PGM 2L1 (S-19) is also recommended for detection of PGM 2L1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PGM 2L1 siRNA (h): sc-96893, PGM 2L1 siRNA (m): sc-152191, PGM 2L1 shRNA Plasmid (h): sc-96893-SH, PGM 2L1 shRNA Plasmid (m): sc-152191-SH, PGM 2L1 shRNA (h) Lentiviral Particles: sc-96893-V and PGM 2L1 shRNA (m) Lentiviral Particles: sc-152191-V.

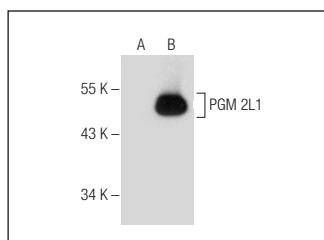
Molecular Weight of PGM 2L1: 70 kDa.

Positive Controls: PGM 2L1 (m): 293T Lysate: sc-127320.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PGM 2L1 (S-19): sc-243783. Western blot analysis of PGM 2L1 expression in non-transfected: sc-117752 (A) and mouse PGM 2L1 transfected: sc-127320 (B) 293T 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.