

PGM 2L1 (A-6): sc-390767

BACKGROUND

PGM 2L1 (phosphoglucosyltransferase 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

1. Tao, Y., et al. 2006. Holistic and network analysis of meningioma pathogenesis and malignancy. *Biofactors* 28: 203-219.
2. Shin, J.H., et al. 2006. Large-scale identification of cytosolic mouse brain proteins by chromatographic prefractionation. *Electrophoresis* 27: 2799-2813.
3. Nair, S., et al. 2006. Pharmacogenomics of phenolic antioxidant butylated hydroxyanisole (BHA) in the small intestine and liver of Nrf2 knockout and C57BL/6J mice. *Pharm. Res.* 23: 2621-2637.
4. Maliekal, P., et al. 2007. Molecular identification of mammalian phosphopentomutase and glucose-1,6-bisphosphate synthase, two members of the α -D-phosphohexomutase family. *J. Biol. Chem.* 282: 31844-31851.
5. Veiga-da-Cunha, M., et al. 2008. Mammalian phosphomannomutase PMM1 is the brain IMP-sensitive glucose-1,6-bisphosphatase. *J. Biol. Chem.* 283: 33988-33993.

CHROMOSOMAL LOCATION

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

SOURCE

PGM 2L1 (A-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 210-244 of PGM 2L1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PGM 2L1 (A-6) is available conjugated to agarose (sc-390767 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390767 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390767 PE), fluorescein (sc-390767 FITC), Alexa Fluor[®] 488 (sc-390767 AF488), Alexa Fluor[®] 546 (sc-390767 AF546), Alexa Fluor[®] 594 (sc-390767 AF594) or Alexa Fluor[®] 647 (sc-390767 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390767 AF680) or Alexa Fluor[®] 790 (sc-390767 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

PGM 2L1 (A-6) is recommended for detection of PGM 2L1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

PGM 2L1 (A-6) is also recommended for detection of PGM 2L1 in additional species, including canine and bovine.

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.

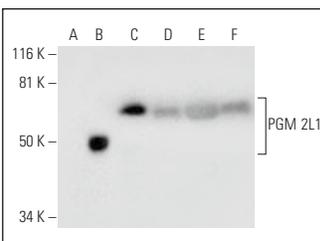
Molecular Weight of PGM 2L1: 70 kDa.

Positive Controls: PGM 2L1 (m): 293T Lysate: sc-127320, NIH/3T3 whole cell lysate: sc-2210 or human spleen extract: sc-363779.

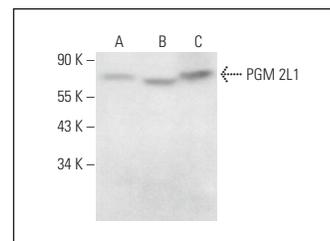
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



PGM 2L1 (A-6): sc-390767. Western blot analysis of PGM 2L1 expression in non-transfected 293T: sc-117752 (A) and mouse PGM 2L1 transfected 293T: sc-127320 (B) whole cell lysates and human hippocampus (C), human spleen (D), human testis (E) and human lung (F) tissue extracts.



PGM 2L1 (A-6): sc-390767. Western blot analysis of PGM 2L1 expression in Neuro-2A (A), NIH/3T3 (B) and C6 (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.