

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

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.
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.
7. Nielsen, O.H., et al. 2009. Influence of smoking on colonic gene expression profile in Crohn's disease. *PLoS ONE* 4: e6210.
8. Ina, S., et al. 2010. Identifying molecular markers for chemosensitivity to gemcitabine in pancreatic cancer: increased expression of interferon-stimulated gene 15 kd is associated with intrinsic chemoresistance. *Pancreas* 39: 473-485.
9. Cao, Y., et al. 2010. MicroRNA-dependent regulation of PTEN after arsenic trioxide treatment in bladder cancer cell line T24. *Tumour Biol.* 32: 179-188.

CHROMOSOMAL LOCATION

Genetic locus: Pgm2l1 (mouse) mapping to 7 E3.

PRODUCT

PGM 2L1 (m): 293T Lysate represents a lysate of mouse PGM 2L1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

PGM 2L1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PGM 2L1 antibodies. Recommended use: 10-20 μ l per lane.

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

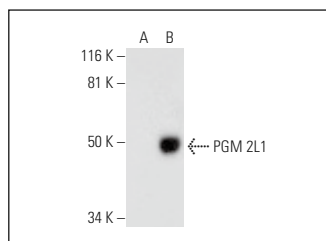
PGM 2L1 (A-6): sc-390767 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse PGM 2L1 expression in PGM 2L1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

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

- 1) Western Blotting: use m-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.

DATA



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