



PGK1 (m): 293T Lysate: sc-122519

BACKGROUND

Phosphoglycerate kinases 1/2 (PGK1/2), (ATP: 3-phospho-D-glycerate 1-phosphotransferase, EC 2.7.2.3) are somatically expressed, glycolytic enzymes that catalyze the transfer of a phosphoryl group from the acyl phosphate of 1,3-bisphosphoglycerate to ADP, thereby forming ATP and 3-phosphoglycerate. The human PGK gene is interrupted by 10 introns and spans 23 kilobases, and is X chromosome-linked at position Xq11-Xq13, a region implicated in prostate cancer, androgen insensitivity, perineal hypospadias, and other genetic abnormalities. In addition to influencing glycolysis, the PGK1 is secreted by tumor cells and contributes to proliferative angiogenic processes as a disulfide reductase. PGK1 mediated reduction of disulphide bonds in the serine proteinase plasmin initiates the release of the tumor blood vessel inhibitor angiostatin, an event that is critical for blood vessel formation or angiogenesis in tumor expansion and metastasis.

REFERENCES

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2. Ogino, T., Iwama, M., Kinouchi, J., Shibagaki, Y., Tsukamoto, T. and Mizumoto, K. 1999. Involvement of a cellular glycolytic enzyme, phosphoglycerate kinase, in Sendai virus transcription. *J. Biol. Chem.* 274: 35999-36008.
3. Riley, D.E., Cho, I.R. and Krieger, J.N. 1999. A hemizygous short tandem repeat polymorphism 3' to the human phosphoglycerate kinase gene. *Mol. Biol. Rep.* 26: 159-165.
4. Lay, A.J., Jiang, X.M., Kisker, O., Flynn, E., Underwood, A., Condrón, R. and Hogg, P.J. 2000. Phosphoglycerate kinase acts in tumour angiogenesis as a disulphide reductase. *Nature* 408: 869-873.
5. LocusLink Report (LocusID: 5230). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: Pgk1 (mouse) mapping to X C.

PRODUCT

PGK1 (m): 293T Lysate represents a lysate of mouse PGK1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

PGK1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PGK1 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.

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.