



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# PGAM1 (m): 293T Lysate: sc-122511

## BACKGROUND

Members of the PGAM (phosphoglycerate mutase) family of proteins are important components of glucose and 2,3-BPGA (2,3-bisphosphoglycerate) metabolism. They are responsible for catalyzing the transfer of phospho groups between the carbon atoms of phosphoglycerates. In mammals there are two types of PGAM isozymes: PGAM1 (also known as PGAMB) and PGAM2 (also known as PGAMA). In the cell, PGAM1 and PGAM2 exist as either homodimers or heterodimers and are responsible for the interconversion of 3-phosphoglycerate and 2-phosphoglycerate. PGAM2 homodimers are expressed in skeletal muscle, mature sperm cells and heart; PGAM1 homodimers are found in most other tissues; and PGAM1/PGAM2 heterodimers are found exclusively in the heart. PGAM4, also known as PGAM3, is a protein formerly considered to be specific to humans. Initially the PGAM4 gene was described as a pseudogene but it is now known to encode a functional protein at least 25 million years old. The gene encoding PGAM4 is believed to have originated by retrotransposition, with the original copy being the PGAM1 gene.

## REFERENCES

- Zhang, J., Yu, L., Fu, Q., Gao, J., Xie, Y., Chen, J., Zhang, P., Liu, Q. and Zhao, S. 2001. Mouse phosphoglycerate mutase M and B isozymes: cDNA cloning, enzyme activity assay and mapping. *Gene* 264: 273-279.
- Betrán, E., Wang, W., Jin, L. and Long, M. 2002. Evolution of the phosphoglycerate mutase processed gene in human and chimpanzee revealing the origin of a new primate gene. *Mol. Biol. Evol.* 19: 654-663.
- Shalom-Barak, T. and Knaus, U.G. 2002. A p21-activated kinase-controlled metabolic switch upregulates phagocyte NADPH oxidase. *J. Biol. Chem.* 277: 40659-40665.
- Saavedra, E., Encalada, R., Pineda, E., Jasso-Chávez, R. and Moreno-Sánchez, R. 2005. Glycolysis in *Entamoeba histolytica*. Biochemical characterization of recombinant glycolytic enzymes and flux control analysis. *FEBS J.* 272: 1767-1783.
- Evans, M.J., Saghatelian, A., Sorensen, E.J. and Cravatt, B.F. 2005. Target discovery in small-molecule cell-based screens by *in situ* proteome reactivity profiling. *Nat. Biotechnol.* 23: 1303-1307.
- de Aauri, P., Repiso, A., Oliva, B., Vives-Corróns, J.L., Climent, F. and Carreras, J. 2005. Characterization of the first described mutation of human red blood cell phosphoglycerate mutase. *Biochim. Biophys. Acta* 1740: 403-410.
- Huang, L.J., Chen, S.X., Luo, W.J., Jiang, H.H., Zhang, P.F. and Yi, H. 2006. Proteomic analysis of secreted proteins of non-small cell lung cancer. *Ai Zheng* 25: 1361-1367.
- Su, H.X., Xu, D.Z., Zhang, Y.H., Men, K., Zhao, X.N., Li, D., Zhang, L., Zhang, J.X. and Yan, Y.P. 2007. Screening cellular proteins binding to the core region of hepatitis C virus RNA genome with digoxin-labeled nucleic acids. *Intervirology* 50: 303-309.
- Evans, M.J., Morris, G.M., Wu, J., Olson, A.J., Sorensen, E.J. and Cravatt, B.F. 2007. Mechanistic and structural requirements for active site labeling of phosphoglycerate mutase by spiroepoxides. *Mol. Biosyst.* 3: 495-506.

## CHROMOSOMAL LOCATION

Genetic locus: Pgam1 (mouse) mapping to 19 C3.

## PRODUCT

PGAM1 (m): 293T Lysate represents a lysate of mouse PGAM1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

PGAM1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PGAM1 antibodies. Recommended use: 10-20 µl per lane.

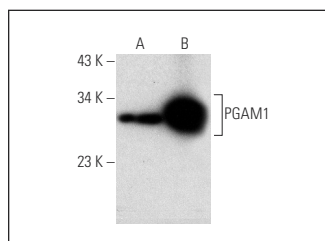
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PGAM1/4 (D-5): sc-365677 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse PGAM1 expression in PGAM1 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



PGAM1/4 (D-5): sc-365677. Western blot analysis of PGAM1 expression in non-transfected: sc-117752 (A) and mouse PGAM1 transfected: sc-122511 (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](http://www.scbt.com) for detailed protocols and support products.