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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

www.szabo-scandic.com

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

G6PT (h): 293T Lysate: sc-116933

BACKGROUND

G6PT (glucose-6-phosphate translocase), also known as G6PT1, G6PT2, G6PT3, GSD1b, GSD1c, GSD1d, TRG19 or SLC37A4 (solute carrier family 37, member 4), is a 429 amino acid endoplasmic reticulum multi-pass membrane protein belonging to the SLC37A family (also known as SLC37A sugar transporter family) of the major facilitator superfamily. Highly expressed in liver and kidney, G6PT is involved in the transport of glucose-6-phosphate (G6P) from the cytoplasm to the lumen of the endoplasmic reticulum. G6PT plays a critical role in glycogenolysis and gluconeogenesis, which are metabolic pathways involved in the regulation of blood glucose levels. G6PT also plays a role in ATP-mediated calcium sequestration in the lumen of the endoplasmic reticulum. Mutation in the gene encoding G6PT causes glycogen storage disease type 1B (GSD1B), a disorder characterized by impairment of terminal steps of glycogenolysis and gluconeogenesis.

REFERENCES

1. Gerin, I., et al. 1997. Sequence of a putative glucose 6-phosphate translocase, mutated in glycogen storage disease type Ib. *FEBS Lett.* 419: 235-238.
2. Veiga-da-Cunha, M., et al. 1998. A gene on chromosome 11q23 coding for a putative glucose-6-phosphate translocase is mutated in glycogen-storage disease types Ib and Ic. *Am. J. Hum. Genet.* 63: 976-983.
3. Ihara, K., et al. 1998. Genomic structure of the human glucose 6-phosphate translocase gene and novel mutations in the gene of a Japanese patient with glycogen storage disease type Ib. *Hum. Genet.* 103: 493-496.
4. Galli, L., et al. 1999. Mutations in the glucose-6-phosphate transporter (G6PT) gene in patients with glycogen storage diseases type 1b and 1c. *FEBS Lett.* 459: 255-258.
5. Hiraiwa, H., et al. 1999. Inactivation of the glucose 6-phosphate transporter causes glycogen storage disease type 1b. *J. Biol. Chem.* 274: 5532-5536.
6. Csala, M., et al. 2007. Transport and transporters in the endoplasmic reticulum. *Biochim. Biophys. Acta* 1768: 1325-1341.
7. Chen, S.Y., et al. 2008. The glucose-6-phosphate transporter is a phosphate-linked antiporter deficient in glycogen storage disease type Ib and Ic. *FASEB J.* 22: 2206-2213.
8. Chen, S.Y., et al. 2008. Functional analysis of mutations in the glucose-6-phosphate transporter that cause glycogen storage disease type Ib. *Mol. Genet. Metab.* 95: 220-223.
9. Lord-Dufour, S., et al. 2009. Evidence for transcriptional regulation of the glucose-6-phosphate transporter by HIF-1 α : targeting G6PT with mumbaistatin analogs in hypoxic mesenchymal stromal cells. *Stem Cells* 27: 489-497.

CHROMOSOMAL LOCATION

Genetic locus: SLC37A4 (human) mapping to 11q23.3.

PRODUCT

G6PT (h): 293T Lysate represents a lysate of human G6PT transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

G6PT (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive G6PT antibodies. Recommended use: 10-20 μ l per lane.

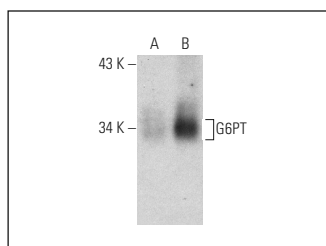
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

G6PT (7B9): sc-293321 is recommended as a positive control antibody for Western Blot analysis of enhanced human G6PT expression in G6PT 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



G6PT (7B9): sc-293321. Western blot analysis of G6PT expression in non-transfected: sc-117752 (A) and human G6PT transfected: sc-116933 (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 for detailed protocols and support products.