

# SLC37A3 (E-14): sc-132099

## BACKGROUND

SLC37A3 (solute carrier family 37 (glycerol-3-phosphate transporter), member 3), also known as sugar phosphate exchanger 3 (SPX3), is a 494 amino acid multi-pass membrane protein that belongs to the SLC37A family (also known as SLC37A sugar transporter family) of the major facilitator superfamily. As with all members of the SLC37A family (which includes SLC37A1, SLC37A2 and SLC37A4), SLC37A3 functions as a transmembrane sugar transporter. Specifically, SLC37A3 is involved in the transport of glycerol-3-phosphate. Three named SLC37A3 isoforms are produced by alternative splicing events.

## REFERENCES

1. Scherer, S.W., Cheung, J., MacDonald, J.R., Osborne, L.R., Nakabayashi, K., Herbrick, J.A., Carson, A.R., Parker-Katirae, L., Skaug, J., Khaja, R., Zhang, J., Hudek, A.K., Li, M., Haddad, M., Duggan, G.E., Fernandez, B.A., et al. 2003. Human chromosome 7: DNA sequence and biology. *Science* 300: 767-772.
2. Bartoloni, L. and Antonarakis, S.E. 2004. The human sugar-phosphate/phosphate exchanger family SLC37. *Pflugers Arch.* 447: 780-783.
3. Yue, Y., Grossmann, B., Holder, S.E. and Haaf, T. 2005. *De novo* t(7;10)(q33;q23) translocation and closely juxtaposed microdeletion in a patient with macrocephaly and developmental delay. *Hum. Genet.* 117: 1-8.
4. Shen, G., Xu, C., Hu, R., Jain, M.R., Nair, S., Lin, W., Yang, C.S., Chan, J.Y. and Kong, A.N. 2005. Comparison of (-)-epigallocatechin-3-gallate elicited liver and small intestine gene expression profiles between C57BL/6J mice and C57BL/6J/Nrf2 (-/-) mice. *Pharm. Res.* 22: 1805-1820.
5. Shen, G., Xu, C., Hu, R., Jain, M.R., Gopalkrishnan, A., Nair, S., Huang, M.T., Chan, J.Y. and Kong, A.N. 2006. Modulation of nuclear factor E2-related factor 2-mediated gene expression in mice liver and small intestine by cancer chemopreventive agent curcumin. *Mol. Cancer Ther.* 5: 39-51.
6. Kim, J.Y., Tillison, K., Zhou, S., Wu, Y. and Smas, C.M. 2007. The major facilitator superfamily member SLC37A2 is a novel macrophage-specific gene selectively expressed in obese white adipose tissue. *Am. J. Physiol. Endocrinol. Metab.* 293: E110-E120.

## CHROMOSOMAL LOCATION

Genetic locus: SLC37A3 (human) mapping to 7q34; Slc37a3 (mouse) mapping to 6 B1.

## SOURCE

SLC37A3 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SLC37A3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132099 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SLC37A3 (E-14) is recommended for detection of SLC37A3 isoforms 1, 2 and 3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

SLC37A3 (E-14) is also recommended for detection of SLC37A3 isoforms 1, 2 and 3 in additional species, including bovine.

Suitable for use as control antibody for SLC37A3 siRNA (h): sc-89692, SLC37A3 siRNA (m): sc-153548, SLC37A3 shRNA Plasmid (h): sc-89692-SH, SLC37A3 shRNA Plasmid (m): sc-153548-SH, SLC37A3 shRNA (h) Lentiviral Particles: sc-89692-V and SLC37A3 shRNA (m) Lentiviral Particles: sc-153548-V.

Molecular Weight of SLC37A3: 54 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or RAW 264.7 whole cell lysate: sc-2211.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.