

SLC37A3 (J-22): sc-102114

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-Katiraei, L., Skaug, J., Khaja, R., Zhang, J., Hudek, A.K., Li, M., Haddad, M., Duggan, G.E., 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.

SOURCE

SLC37A3 (J-22) is a purified rabbit polyclonal antibody raised against SLC37A3 of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

SLC37A3 (J-22) is recommended for detection of SLC37A3 of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

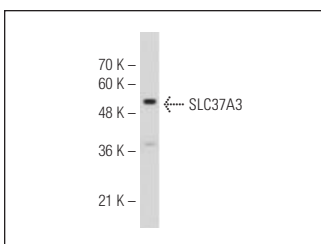
Molecular Weight of SLC37A3: 54 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



SLC37A3 (J-22): sc-102114. Western blot analysis of SLC37A3 expression in Hep G2 whole cell lysate.

RESEARCH USE

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