



OATP-J (D-14): sc-87340

BACKGROUND

The organic anion transporter family of proteins mediate hepatic uptake of cardiac glycosides. OATP-J (organic anion transporter J), also known as SLC05A1 (solute carrier organic anion transporter family member 5A1), SLC21A15 (solute carrier family 21 member 15) or OATPRP4, is an 848 amino acid member of the organic anion transporter protein family. OATP-J is a multi-pass membrane protein that contains one Kazal-like domain. The gene that encodes OATP-J maps to human chromosome 8, which is made up of nearly 146 million bases, encoding about 800 genes. Translocation of portions of chromosome 8 with amplifications of the c-Myc gene are found in some leukemias and lymphomas, and typically associated with a poor prognosis. Portions of chromosome 8 have been linked to schizophrenia and bipolar disorder. Trisomy 8, also known as Warkany syndrome 2, most often results in early miscarriage but is occasionally seen in a mosaic form in surviving patients who suffer to a varying degree from a number of symptoms including retarded mental and motor development, and certain facial and developmental defects. WRN is a DNA helicase encoded by chromosome 8 and shown defective in those with the early aging disorder Werner syndrome. Chromosome 8 is also associated with Pfeiffer syndrome, congenital hypothyroidism and Waardenburg syndrome.

REFERENCES

- Wildenauer, D.B. and Schwab, S.G. 1999. Chromosomes 8 and 10 workshop. *Am. J. Med. Genet.* 88: 239-243.
- Kashino, G., et al. 2001. Preferential expression of an intact WRN gene in Werner syndrome cell lines in which a normal chromosome 8 has been introduced. *Biochem. Biophys. Res. Commun.* 289: 111-115.
- Cai, S.Y., et al. 2002. An evolutionarily ancient OATP: insights into conserved functional domains of these proteins. *Am. J. Physiol. Gastrointest. Liver Physiol.* 282: G702-G710.
- Selicorni, A., et al. 2002. Cytogenetic mapping of a novel locus for type II Waardenburg syndrome. *Hum. Genet.* 110: 64-67.
- Hagenbuch, B. and Meier, P.J. 2003. The superfamily of organic anion transporting polypeptides. *Biochim. Biophys. Acta* 1609: 1-18.
- McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. *Am. J. Hum. Genet.* 77: 582-595.
- Agrelo, R., et al. 2006. Epigenetic inactivation of the premature aging Werner syndrome gene in human cancer. *Proc. Natl. Acad. Sci. USA* 103: 8822-8827.
- Mossafa, H., et al. 2006. Non-Hodgkin's lymphomas with Burkitt-like cells are associated with c-Myc amplification and poor prognosis. *Leuk. Lymphoma* 47: 1885-1893.
- Nusbaum, C., et al. 2006. DNA sequence and analysis of human chromosome 8. *Nature* 439: 331-335.

CHROMOSOMAL LOCATION

Genetic locus: SLC05A1 (human) mapping to 8q13.3; Slco5a1 (mouse) mapping to 1 A3.

SOURCE

OATP-J (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of OATP-J 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-87340 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OATP-J (D-14) is recommended for detection of OATP-J of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

OATP-J (D-14) is also recommended for detection of OATP-J in additional species, including equine, canine and porcine.

Suitable for use as control antibody for OATP-J siRNA (h): sc-77809, Oatp-J siRNA (m): sc-150155, OATP-J shRNA Plasmid (h): sc-77809-SH, Oatp-J shRNA Plasmid (m): sc-150155-SH, OATP-J shRNA (h) Lentiviral Particles: sc-77809-V and Oatp-J shRNA (m) Lentiviral Particles: sc-150155-V.

Molecular Weight of OATP-J: 92 kDa.

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) 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 or our catalog for detailed protocols and support products.