SANTA CRUZ BIOTECHNOLOGY, INC.

OCT6 (W-13): sc-132400

BACKGROUND

Organic cation transporters (OCT) are expressed in the plasma membrane of epithelial cells from a wide range of tissues, where they function in the elimination of endogenous amines and cationic drugs as well as other exogenous xenobiotics. The structure of OCT family member proteins consists of a 12-transmembrane-domain structure and a large extracellular hydrophilic loop. In humans, OCT1 is primarily expressed in the liver, while OCT2 is expressed in the kidney. OCT3 is expressed in the placenta, skeletal muscle, prostate, aorta and liver. OCT6 is highly expressed in testis and fetal liver. OCT6 also displays high expression in human hematopoietic tissues, including $CD34^+$ cells and leukemias making OCT6 a potential therapeutic target for the treatment of leukemia.

REFERENCES

1. Gorboulev, V., Ulzheimer, J.C., Akhoundova, A., Ulzheimer-Teuber, I., Karbach, U., Quester, S., Baumann, C., Lang, F., Busch, A.E. and Koepsell, H. 1997. Cloning and characterization of two human polyspecific organic cation transporters. DNA Cell Biol. 16: 871-881.
2. Koepsell, H. 1998. Organic cation transporters in intestine, kidney, liver, and brain. Annu. Rev. Physiol. 60: 246-266.
3. Dresser, M.J., Zhang, L. and Giacomini, K.M. 1999. Molecular and functional characteristics of clones human organic cation transporters. Pharm. Biotechnol. 12: 441-469.
4. Verhaagh, S., Schweifer, N., Barlow, D.P. and Zwart, R. 1999. Cloning of the mouse and human solute carrier 22α3 (SlC22A3/SLC22A#) identifies a conserved cluster three organic cation transporters on mouse chromosome 17 and human 6q26-q27. Genomics 55: 209-218.
5. Gong, S., Lu, X., Xu, Y., Swiderski, C.F., Jordan, C.T. and Moscow, J.A. 2002. Identification of OCT6 as a novel organic cation transporter preferentially expressed in hematopoietic cells and leukemias. Exp. Hematol. 30: 1162-1169.

CHROMOSOMAL LOCATION

Genetic locus: Slc22a16 (mouse) mapping to 10 B1.

SOURCE

OCT6 (W-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of OCT6 of mouse 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-132400 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

OCT6 (W-13) is recommended for detection of OCT6 isoforms 1 and 2 of mouse and rat 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); non cross-reactive with other OCT family members.

Suitable for use as control antibody for OCT6 siRNA (m): sc-150172, OCT6 shRNA Plasmid (m): sc-150172-SH and OCT6 shRNA (m) Lentiviral Particles: sc-150172-V.

Molecular Weight of OCT6: 58 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.

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.