UST6 (N-12): sc-132867



The Power to Question

BACKGROUND

Members of the SLC22 family mediate anion transport and are expressed primarily in liver and kidney. UST6 (unknown substrate transporter 6), also known as HIMTP or SLC22A25 (solute carrier family 22, member 25), is a 547 amino acid multi-pass membrane protein belonging to the major facilitator superfamily and the organic cation transporter family. Exclusively expressed in liver in both embryo and adult, UST6 is involved in organic anion transport. The gene encoding SLC22A25 is located on human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

- 1. Koepsell, H.and Endou, H. 2004. The SLC22 drug transporter family. Pflugers Arch. 447: 666-676.
- Eraly, S.A., Monte, J.C. and Nigam, S.K. 2004. Novel slc22 transporter homologs in fly, worm, and human clarify the phylogeny of organic anion and cation transporters. Physiol. Genomics 18: 12-24.
- Taylor, T.D., Noguchi, H., Totoki, Y., Toyoda, A., Kuroki, Y., Dewar, K., Lloyd, C., Itoh, T., Takeda, T., Kim, D.W., She, X., Barlow, K.F., Bloom, T., Bruford, E., Chang, J.L., Cuomo, C.A., Eichler, E., Fitzgerald, M.G., Jaffe, D.B., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. Nature 440: 497-500.
- 4. Jacobsson, J.A., Haitina, T., Lindblom, J. and Fredriksson, R. 2007. Identification of six putative human transporters with structural similarity to the drug transporter SLC22 family. Genomics 90: 595-609.
- Rizwan, A.N. and Burckhardt, G. 2007. Organic anion transporters of the SLC22 family: biopharmaceutical, physiological, and pathological roles. Pharm. Res. 24: 450-470.
- Ogasawara, K., Terada, T., Motohashi, H., Asaka, J., Aoki, M., Katsura, T., Kamba, T., Ogawa, O. and Inui, K. 2008. Analysis of regulatory polymorphisms in organic ion transporter genes (SLC22A) in the kidney. J. Hum. Genet. 53: 607-614.
- Wu, W., Baker, M.E., Eraly, S.A., Bush, K.T. and Nigam, S.K. 2009. Analysis
 of a large cluster of SLC22 transporter genes, including novel USTs, reveals
 species-specific amplification of subsets of family members. Physiol.
 Genomics 38: 116-124.

CHROMOSOMAL LOCATION

Genetic locus: SLC22A25 (human) mapping to 11q12.3.

SOURCE

UST6 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of UST6 of human origin.

RESEARCH USE

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

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-132867 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

UST6 (N-12) is recommended for detection of UST6 of 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); non cross-reactive with UST.

Suitable for use as control antibody for UST6 siRNA (h): sc-96267, UST6 shRNA Plasmid (h): sc-96267-SH and UST6 shRNA (h) Lentiviral Particles: sc-96267-V.

Molecular Weight of UST6: 61 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.

PROTOCOLS

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

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