

UST (D-20): sc-102151

BACKGROUND

Sulfotransferase enzymes catalyze the sulfate conjugation of many hormones, neurotransmitters, drugs, and xenobiotic compounds. These enzymes differ in their tissue distributions and substrate specificities, although the gene structure (number and length of exons) is similar among family members. UST (Uronyl 2-sulfotransferase), also known as DS2ST or 2OST, is a 406 amino acid member of the sulfotransferase 3 family. Localized to the golgi apparatus membrane, UST is a sulfotransferase that catalyzes the transfer of sulfate to the 2-position of uronyl residues, such as iduronyl residues in dermatan sulfate and glucuronyl residues of chondroitin sulfate. While UST has high activity with the aforementioned residues, it has no activity with desulfated N-resulfated heparin. UST is a single-pass type II membrane protein.

REFERENCES

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- Kobayashi, M., et al. 1999. Molecular cloning and characterization of a human uronyl 2-sulfotransferase that sulfates iduronyl and glucuronyl residues in dermatan/chondroitin sulfate. *J. Biol. Chem.* 274: 10474-10480.
- Tiedemann, K., et al. 2001. The glucuronyl C5-epimerase activity is the limiting factor in the dermatan sulfate biosynthesis. *Arch. Biochem. Biophys.* 391: 65-71.
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- Ohtake, S., et al. 2005. Recognition of sulfation pattern of chondroitin sulfate by uronosyl 2-O-sulfotransferase. *J. Biol. Chem.* 280: 39115-39123.
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CHROMOSOMAL LOCATION

Genetic locus: UST (human) mapping to 6q25.1; Ust (mouse) mapping to 10 A1.

SOURCE

UST (D-20) is a purified rabbit polyclonal antibody raised against UST 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.

PRODUCT

Each vial contains 100 µg of IgG in PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

UST (D-20) is recommended for detection of UST of mouse, rat, human and dog 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 UST siRNA (h): sc-95159, UST siRNA (m): sc-154949, UST shRNA Plasmid (h): sc-95159-SH, UST shRNA Plasmid (m): sc-154949-SH, UST shRNA (h) Lentiviral Particles: sc-95159-V and UST shRNA (m) Lentiviral Particles: sc-154949-V.

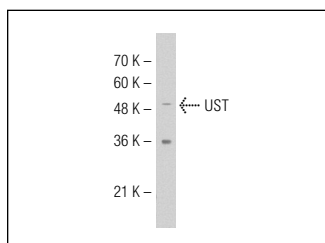
Molecular Weight of UST: 48 kDa.

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

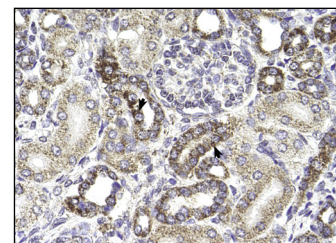
RECOMMENDED SECONDARY REAGENTS

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



UST (D-20): sc-102151. Western blot analysis of UST expression in Hep G2 whole cell lysate.



UST (D-20): sc-102151. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining.

RESEARCH USE

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