

DESCRIPTION

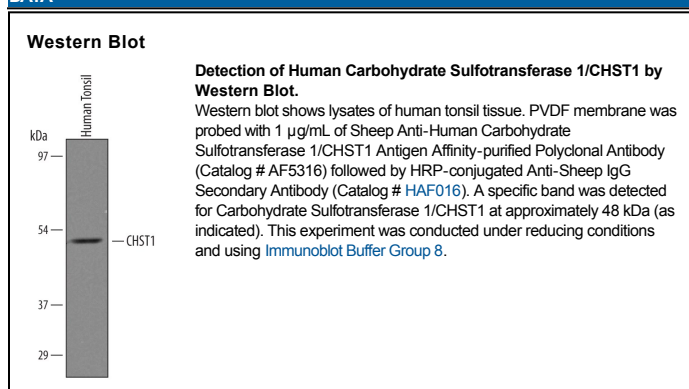
Species Reactivity	Human
Specificity	Detects human Carbohydrate Sulfotransferase 1/CHST1 in direct ELISAs and Western blots. In Western blots, approximately 50% cross-reactivity with recombinant mouse (rm) CHST1 is observed and less than 5% cross-reactivity with recombinant human (rh) CHST2, rhCHST5, and rmCHST7 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Carbohydrate Sulfotransferase 1/CHST1 Arg24-Ser411 Accession # O43916
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The CHST family is comprised of 14 enzymes in humans. All members of this family are Golgi-localized type II membrane proteins. Only the luminal and enzymatic domain is expressed in each of our recombinant CHST proteins. These enzymes transfer sulfate (i.e., sulfonate) onto the 6-O or 4-O positions of GalNAc, Gal and GlcNAc residues on glycoproteins, proteoglycans and glycolipids (1). This sulfation often creates specific epitopes that can be recognized by extracellular matrix proteins, cell surface receptors and viruses (2). CHST1, also known as keratan sulfate Gal-6 sulfotransferase, transfers sulfate to position 6 of galactose residues on keratan sulfate (3). It also has sulfotransferase activity on sialyl N-acetylglucosamine structures and participates in biosynthesis of selectin ligands that play a central role in lymphocyte homing at sites of inflammation (4). Human CHST1 shares 94% amino acid sequence identity with mouse CHST1.

References:

1. Hemmerich, S. and S.D. Rosen (2000) *Glycobiology* **10**:849.
2. Bowman, K.G. and C.R. Bertozzi (1999) *Chem. Biol.* **5**:447.
3. Fukuta, M. *et al.* (1997) *J. Biol. Chem.* **272**:32321.
4. Yamada, T. *et al.* (2004) *Biochem. J.* **384**:567.