

Recombinant Human CHST14, His-tagged

Cat. No. CHST14-100H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Carbohydrate Sulfotransferase 14/CHST14 is produced by our mammalian expression system in human cells. The target protein is expressed with sequence (Glu61-Gln376) of Human CHST14 fused with a 6His tag at the C-terminus.
Species	Human
Source	HEK293
ProteinLength	61-376 a.a.
Description	Carbohydrate Sulfotransferase 14 (CHST14) is a single-pass type II membrane protein member of the sulfotransferase 2 family. CHST14 is widely expressed and at high levels in pituitary gland, placenta, uterus and thyroid. CHST14 plays a pivotal role in the formation of 4-O-sulfated IdoA blocks in dermatan sulfate and the cerbellar neural network during postnatal brain development. CHST14 catalyzes the transfer of sulfate to position 4 of the N-acetylgalactosamine (GalNAc) residue of dermatan sulfate. CHST14 transfers sulfate to the C-4 hydroxyl of beta1,4-linked GalNAc that is substituted with an alpha-linked iduronic acid (IdoUA) at the C-3 hydroxyl. The CHST14 transfers sulfate more efficiently to GalNAc residues in -IdoUA-GalNAc-IdoUA- than in -GlcUA-GalNAc-GlcUA sequences.
AA Sequence	ERGILAEMKPLPLHPPGREGTAWRGKAPKPGGLSLRAGDADLQVRQDVRNRTLRA VCGQP GMPR DPWDLPGVQRRTLLRHILVSDRYRFLYCYVPKVACSNWKRVMKVL

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AGVLDSDVRL KMDHRSDL VFLADLRPEEIRYRLQHYFKFLVREPLERLLSAYRN
 KFGEIREYQQRYGAE IVRRYRAGAGPS PAGDDVTFPEFLRYLVDDEPERMNEHW
 MPVYHLCQPCAVHYDFVGSYE RLEADANQVLEWVRAP PHVRFPARQAWYRPASP
 ESLHYHLC SAPRALLQDVL PKYILDFS LFAYPLPNVTKEACQQVDHH HHHH

Endotoxin Less than 0.1 ng/μg (1 IEU/μg).

Purity Greater than 95% as determined by reducing SDS-PAGE.

GENE INFORMATION

Gene Name CHST14 carbohydrate (N-acetylgalactosamine 4-0) sulfotransferase 14 [Homo sapiens]

Official Symbol CHST14

Synonyms CHST14; carbohydrate (N-acetylgalactosamine 4-0) sulfotransferase 14; D4ST1, dermatan 4 sulfotransferase 1; carbohydrate sulfotransferase 14; D4ST 1; HD4ST; dermatan 4 sulfotransferase 1; ATCS; D4ST1; HNK1ST;

Gene ID 113189

mRNA Refseq NM_130468

Protein Refseq NP_569735

MIM 608429

UniProt ID Q8NCH0

Chromosome 15q15.1

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Location	
Pathway	Glycosaminoglycan biosynthesis - chondroitin sulfate, organism-specific biosystem; Glycosaminoglycan biosynthesis - chondroitin sulfate, conserved biosystem; dermatan sulfate biosynthesis, organism-specific biosystem; dermatan sulfate biosynthesis, conserved biosystem; dermatan sulfate biosynthesis (late stages), organism-specific biosystem; dermatan sulfate biosynthesis (late stages), conserved biosystem; metapathway biotransformation, organism-specific biosystem;
Function	N-acetylgalactosamine 4-O-sulfotransferase activity; phosphate ion binding; transferase activity;

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