Recombinant CHSTC protein (His tag)

Catalog Number	543718
Synonyms	Chondroitin 4-O-sulfotransferase 2; Chondroitin 4-sulfotransferase 2; C4ST-2; C4ST2; Sulfotransferase Hlo
Species	Human
Expression System	E. coli
Accession	Q9NRB3
Molecular Weight	Predictes a molecular mass of 39.10 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	99-414
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 99-414 aa (Q9NRB3) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Carbohydrate sulfotransferase 12 (CHST12), a key enzyme in chondroitin sulfate biosynthesis, is now available as a stable and soluble fragment (residues 99-414). This 316-amino acid fragment is optimized for structural and biochemical studies, enabling researchers to investigate sulfotransferase activity and proteoglycan modification with high reliability. Carbohydrate sulfotransferase 12 (CHST12), also known as chondroitin 4-O-sulfotransferase 2, catalyzes the transfer of sulfate to position 4 of the N-acetylgalactosamine (GalNAc) residue in chondroitin and desulfated dermatan sulfate. Chondroitin sulfate is the predominant proteoglycan in cartilage and is widely distributed on cell surfaces and extracellular matrices, playing critical roles in cellular signaling and matrix organization. The enzyme localizes to the Golgi apparatus membrane as a single-pass type II membrane protein, where it specifically sulfates chondroitin without forming 4,6-di-O-sulfated GalNAc from chondroitin sulfate C, highlighting its substrate specificity in glycosaminoglycan modification pathways.