Recombinant CHSTE protein (His tag)

Catalog Number	543172
Synonyms	Dermatan 4-sulfotransferase 1; D4ST-1; hD4ST1
Species	Human
Expression System	E. coli
Accession	Q8NCH0
Molecular Weight	Predictes a molecular mass of 34.38 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 35 kDa band.

Product Information

Sequence Region	100-376
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 100-376 aa (Q8NCH0) 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	This recombinant protein is a fragment of Carbohydrate sulfotransferase 14 (CHST14), also known as Dermatan 4-sulfotransferase 1, sourced from Homo sapiens. The product encompasses residues 100-376, representing a stable and soluble unit ideal for structural studies, enzymatic assays, and biochemical research on sulfotransferase activity. Carbohydrate sulfotransferase 14 (CHST14) is a Golgi apparatus membrane-bound enzyme that catalyzes the transfer of sulfate to the N-acetylgalactosamine (GalNAc) residue at position 4 in dermatan sulfate. It plays a critical role in forming 4-O-sulfated iduronic acid (IdoUA) blocks, with a preference for substrates containing IdoUA-GalNAc sequences over GlcUA-GalNAc sequences. This enzyme is essential for the proper sulfation pattern in dermatan sulfate, which influences extracellular matrix composition and has been implicated in cerebellar neural network development during postnatal brain maturation. The protein is classified as a single-pass type II membrane protein localized to the Golgi apparatus, where it facilitates post-translational modifications crucial for proteoglycan function.