Recombinant CHSS3 protein (His tag)

Catalog Number	547563
Synonyms	Carbohydrate synthase 2; Chondroitin glucuronyltransferase 3; Chondroitin synthase 2; ChSy-2; Glucuronosyl-N-acetylgalactosaminyl-proteoglycan 4-beta-N-acetylgalactosaminyltransferase II; N-acetylgalactosaminyl-proteoglycan 3-beta-glucuronosyltransferase 3; N-acetylgalactosaminyltransferase 3
Species	Human
Expression System	E. coli
Accession	Q70JA7
Molecular Weight	Predictes a molecular mass of 50.34 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 51 kDa band.

Product Information

Sequence Region	170-585
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 170-585 aa (Q70JA7) 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 Chondroitin sulfate synthase 3 (CHSY3) fragment (aa 170-585) from Homo sapiens, engineered for stability and solubility. This 416-amino acid fragment retains key enzymatic activities, including beta-1,3-glucuronic acid and beta-1,4-N-acetylgalactosamine transferase functions, making it ideal for structural studies and biochemical assays. Chondroitin sulfate synthase 3 (CHSY3) is a dual-function glycosyltransferase that catalyzes the transfer of glucuronic acid from UDP-GlcUA and N-acetylgalactosamine from UDP-GalNAc to elongating chondroitin polymers. Although its specific activity is notably lower than CHSY1, it plays a critical role in chondroitin sulfate biosynthesis, a key component of proteoglycans in extracellular matrices. The full-length protein is localized to the Golgi apparatus and Golgi stack membrane as a single-pass type II membrane protein, where it facilitates glycosaminoglycan chain elongation. This recombinant fragment provides a soluble, functional unit for investigating CHSY3's transferase mechanisms and its contributions to carbohydrate synthesis.