Recombinant CHSS1 protein (His tag)

Catalog Number	545348
Synonyms	Chondroitin glucuronyltransferase 1; Chondroitin synthase 1; ChSy-1; Glucuronosyl-N-acetylgalactosaminyl-proteoglycan 4-beta-N-acetylgalactosaminyltransferase 1; N-acetylgalactosaminyl-proteoglycan 3-beta-glucuronosyltransferase 1; N-acetylgalactosaminyltransferase 1
Species	Human
Expression System	E. coli
Accession	Q86X52
Molecular Weight	Predictes a molecular mass of 50.13 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 51 kDa band.

Product Information

Sequence Region	84-495
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 84-495 aa (Q86X52) 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 Chondroitin Sulfate Synthase 1 (CHSY1) Fragment (aa 84-495): A high-purity, soluble protein fragment designed for structural and biochemical studies. This product retains key enzymatic activities, including dual β-1,3-glucuronic acid and β-1,4-N-acetylgalactosamine transferase functions, facilitating research into chondroitin sulfate biosynthesis and related signaling pathways. Chondroitin Sulfate Synthase 1 (CHSY1) is a bifunctional glycosyltransferase that catalyzes the sequential transfer of glucuronic acid (from UDP-GlcUA) and N-acetylgalactosamine (from UDP-GalNAc) to elongating chondroitin sulfate chains. It localizes to the Golgi apparatus as a single-pass type II membrane protein and has also been detected in secreted forms. CHSY1 plays a critical role in proteoglycan assembly and is implicated in the negative regulation of osteogenesis, likely through modulation of NOTCH signaling pathways. The provided fragment (amino acids 84-495) represents a stable, soluble region optimized for experimental applications, enabling detailed investigation of its transferase mechanisms without non-essential domains.