Recombinant HS2ST protein (His tag)

Catalog Number	547581
Synonyms	2-O-sulfotransferase; 2-OST; 2OST; HS 2-O-sulfotransferase; Heparan sulfate 2-sulfotransferase
Species	Human
Expression System	E. coli
Accession	Q7LGA3
Molecular Weight	Predictes a molecular mass of 40.44 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	29-356
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 29-356 aa (Q7LGA3) 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 Heparan sulfate 2-O-sulfotransferase 1 (HS2ST1) fragment (residues 29-356) from Homo sapiens, a key enzyme in heparan sulfate biosynthesis. This 328-amino acid fragment is engineered for stability and solubility, ideal for structural studies and biochemical assays investigating sulfotransferase activity. Heparan sulfate 2-O-sulfotransferase 1 catalyzes the transfer of a sulfo group from 3'-phospho-5'-adenylyl sulfate (PAPS) to the 2-OH position of iduronic acid or glucuronic acid within heparan sulfate chains, playing a critical role in heparan sulfate biosynthesis. The enzyme is essential for proper kidney development, as 2-O-sulfation of heparan sulfate mediates signaling between the ureteric bud and metanephric mesenchyme during metanephric development. Naturally localized to the Golgi apparatus membrane as a single-pass type II membrane protein, this sulfotransferase modification is vital for creating the diverse sulfation patterns that regulate heparan sulfate interactions with growth factors and morphogens.