## Recombinant Mouse CHST3/C6ST-1 Protein (His Tag)

### Catalog No. PKSM040601

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description		
Synonyms	C6ST;C6ST-1;GST-0	
Species	Mouse	
Expression Host	HEK293 Cells	
Sequence	Glu 39-Thr 472	
Accession	NP_058083.2	
Calculated Molecular Weight	52.0 kDa	
Observed molecular weight	55-75 kDa	
Tag	N-His	
Bioactivity	Not validated for activity	
Properties		
Purity	> 95 % as determined by reducing SDS-PAGE.	
Endotoxin	< 1.0 EU per $\mu$ g of the protein as determined by the LAL method.	
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.	
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.	
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.	
Reconstitution	Please refer to the printed manual for detailed information.	

Data

KDa	МК	R
116 66.2	=	=
45.0 35.0	=	
25.0	-	
18.4 14.4	=	20

> 95 % as determined by reducing SDS-PAGE.

## Background

Carbohydrate sulfotransferase 3, also known as Chondroitin 6-O-sulfotransferase 1, Chondroitin 6-sulfotransferase and CHST3, is a single-pass type II membrane protein which belongs to thesulfotransferase 1 family and Gal / GlcNAc /

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GalNAc subfamily. CHST3 is widely expressed in adult tissues. It is expressed in heart, placenta, skeletal muscle and pancreas. CHST3 is also expressed in various immune tissues such as spleen, lymph node, thymus and appendix. CHST3 catalyzes the transfer of sulfate to position 6 of the N-acetylgalactosamine (GalNAc) residue of chondroitin. It is a chondroitin sulfate which constitutes the predominant proteoglycan present in cartilage and is distributed on the surfaces of many cells and extracellular matrices. It can also sulfate Gal residues of keratan sulfate, another glycosaminoglycan, and the Gal residues in sialyl N-acetyllactosamine (sialyl LacNAc) oligosaccharides. It may play a role in the maintenance of naive T-lymphocytes in the spleen. Defects in CHST3 are the cause of spondyloepiphyseal dysplasia Omani type (SED Omani type) which is an autosomal recessive disorder characterized by normal length at birth but severely reduced adult height (110-130 cm), severe progressive kyphoscoliosis, arthritic changes with joint dislocations, genu valgum, cubitus valgus, mild brachydactyly, camptodactyly, microdontia and normal intelligence. As a consequence of the arthropathy and the contractures, affected individuals develop restricted joint movement.

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