Recombinant mouse CHST5 protein

Catalog Number: ATGP3995

PRODUCT INFORMATION

Expression system
Baculovirus

Domain
27-395aa

UniProt No.
Q9QUP4

NCBI Accession No.
NP_064334

Alternative Names
Chst5, Carbohydrate sulfotransferase 5, Galactose, N-acetylglucosamine, N-acetylglucosamine 6-O-sulfotransferase 4, GST4, Intestinal N-acetylglucosamine-6-O-sulfotransferase, I-GlcNAc6ST, Intestinal GlcNAc-6-sulfotransferase, mIGn6ST, N-acetylglucosamine 6-O-sulfotransferase 3, GlcNAc6ST-3, Gn6st-3, I-GlcNAc-6-ST, I-GlcN, GST-4. GST-

PRODUCT SPECIFICATION

Molecular Weight
42.9kDa (380aa)

Concentration
0.25mg/ml (determined by Bradford assay)

Formulation
Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 20% glycerol

Purity
> 90% by SDS - PAGE

Endotoxin level
< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity
Specific activity is > 10,000 pmol/min/ug, and is defined as the amount of enzyme that sulfate from PAPS to N-acetyl-D-glucosamine per minute at pH 7.5, at 37C.

Tag
His-Tag

Application
SDS-PAGE, Enzyme Activity

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

CHST5, also known as Carbohydrate sulfotransferase 5, is a Golgi-embedded enzyme that is found in T cells, B cells and intestinal epithelium. This sulfotransferase utilizes 3-phospho-5-adenylyl sulfate (PAPS) as sulfonate donor to catalyze the transfer of sulfate to position 6 of non-reducing N-acetylglucosamine (GlcNAc) residues of keratan. It also mediates sulfation of keratan in cornea. It acts on the non-reducing terminal GlcNAc of short and long carbohydrate substrates that have poly-N-acetyllactosamine structures. It may also have activity toward O-linked sugars of mucin-type acceptors. There is no CHST6 found in the mouse genome it is possible that mouse CHST5 plays a similar biological role to the human CHST6. Recombinant mouse CHST5, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

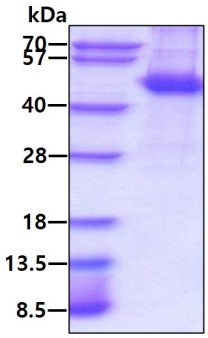
<ADPEF>SRQVP SSPAGLGERV HVLVLSSWRS GSSFVGQLFS QHPDVFYLME PAWHVWDTLS QGSAPALHMA VRDLIRSVFL CDMDVFDAYL PWRRNISDLF QWAVSRALCS PPVCEAFARG NISSEEVCKP LCATRPFGLA QEACSSYSHV VLKEVRFFNL QVLYPLLSDP ALNLRIVHLV RDPRAVLRSR EQTAKALARD NGIVLGTNGT WVEADPRLRV VNEVCRSHVR IAEAALHKPP PFLQDRYRLV RYEDLARDPL TVIRELYAFT GLGLTPQLQT WIHNITHGSG PGARREAFKT TSRDALSVSQ AWRHTLPFAK IRRVQELCGG ALQLLGYRSV HSELEQRDLS LDLLLPRGMD SFKWASSTEK QPES<HHHHHH>

General References

Narentuya., et al, (2019) Sci Rep 9:4387.
Yasutaka Hayashida., et al, (2006) Proc Natl Acad Sci U S A 103:13333-13338.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain