Data Sheet (Cat.No.TMPY-01707)

TargetMol

CHST15 Protein, Human, Recombinant (His)

General Information

Synonyms:	BRAG;carbohydrate (N-acetylgalactosamine 4-sulfate 6-O) sulfotransferase 15;GALNAC4S-6ST
Protein Construction:	A DNA sequence encoding the human BRAG (NP_056976.2) extracellular domain (Ser 99-Thr 561) was expressed, with a polyhistidine tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q7LFX5-1
Molecular Weight:	56 kDa (predicted); 70-80 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 97 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Carbohydrate sulfotransferase 15, also known as N-acetylgalactosamine 4-sulfate 6-O-sulfotransferase, GalNAc4S-6ST, B-cell RAG-associated gene protein, CHST15 and BRAG, is a single-pass type II membrane protein which belongs to thesulfotransferase 1 family. CHST15 / BRAG is expressed in B-cell-enriched tissues but not in fetal or adult thymus. It is expressed in fetal and adult spleen, lymph node, tonsil, bone marrow and peripheral

leukocytes. It is not expressed in T-cells. In pro-B, pre-B, and mature B-cell lines, it colocalizes with RAG1. CHST15 / BRAG is a sulfotransferase that transfers sulfate from 3'-phosphoadenosine 5'-phosphosulfate (PAPS) to the C-6 hydroxyl group of the GalNAc 4-sulfate residue of chondroitin sulfate A and forms chondroitin sulfate E containing GlcA-GalNAc(4,6-SO4) repeating units. It also transfers sulfate to a unique non-reducing terminal sequence, GalNAc(4SO4)-GlcA(2SO4)-GalNAc(6SO4), to yield a highly sulfated structure similar to the structure found in thrombomodulin chondroitin sulfate. CHST15 / BRAG may also act as a B-cell receptor involved in BCR ligation-mediated early activation that mediate regulatory signals key to B-cell development and / or regulation of B-cell-specific RAG expression.

Reference

Verkoczy L.K.,et al.,(1998), hBRAG, a novel B cell lineage cDNA encoding a type II transmembrane glycoprotein potentially involved in the regulation of recombination activating gene 1 (RAG1). Eur. J. Immunol. 28:2839-2853.
Yuki M.,et al., (2000), Structure, expression and mutational analysis of the hBRAG gene on 10q in the frequently deleted region in human endometrial cancer.Oncol. Rep. 7:1339-1342.
Ohtake S.,et al.,(2001), Human N-acetylgalactosamine 4-sulfate 6-O-sulfotransferase cDNA is related to human B cell recombination activating gene-associated gene.J. Biol. Chem. 276:43894-43900.

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