# Human CHST15 / GALNAC4S-6ST / BRAG Protein (His Tag)

**Catalog Number:** **11033-H07H**

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## General Information

**Gene Name Synonym:**

BRAG; GALNAC4S-6ST; 4631426J05Rik; BRAG; GalNAcS-6ST; MAd5; mKIAA0598

**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.

**Source:** Human

**Expression Host:** Human Cells

## QC Testing

**Purity:** > 97 % as determined by SDS-PAGE

**Endotoxin:**

< 1.0 EU per μg of the protein as determined by the LAL method

**Stability:**

Samples are stable for up to twelve months from date of receipt at -70 ℃

**Predicted N terminal:** His

**Molecular Mass:**

The recombinant human BRAG consists of 479 amino acids and predictes a molecular mass of 56 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh BRAG is approximately 70-80 kDa due to glycosylation.

**Formulation:**

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

**Storage:**

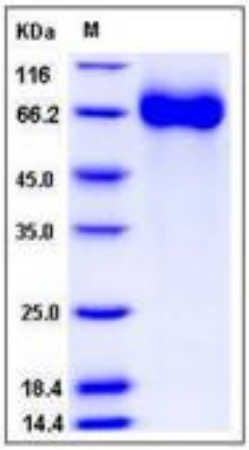
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

**Reconstitution:**

Detailed reconstitution instructions are sent along with the products.

**SDS-PAGE:**




## Protein Description

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 I I membrane protein which belongs to the sulfotransferase 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.

**References**

1.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.
2.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.
3.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.