

Human sialate O-acetyltransferase / SIAE Protein (His Tag)

Catalog Number: 13310-H08B



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

AIS6; CSE-C; CSEC; LSE; YSG2; LSE; Ysg2

Protein Construction:

A DNA sequence encoding the human SIAE (Met 1-Lys523) (Q9HAT2-1) was expressed, with a C-terminal polyhistidine tag.

Source: Human

Expression Host: Baculovirus-Insect 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 °C

Predicted N terminal: Ile 24

Molecular Mass:

The secreted recombinant human SIAE consists of 511 amino acids and predicts a molecular mass of 57.4 KDa. The apparent molecular mass of the protein is approximately 61 Kda in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.0

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:

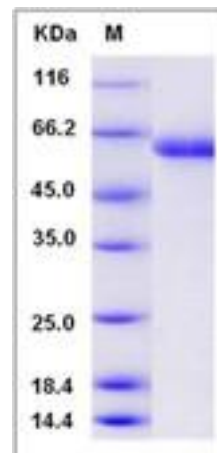
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Sialate O-acetyltransferase belongs to the family of hydrolases, specifically those acting on carboxylic ester bonds. It is widely expressed with high expression in the testis, prostate, and colon. The systematic name of this enzyme class is N-acyl-O-acetylneuraminate O-acetylhydrolase. Other names in common use include N-acetylneuraminate acetyltransferase, sialate 9(4)-O-acetyltransferase, and sialidase. Sialate O-acetyltransferase catalyzes the removal of O-acetyl ester groups from position 9 of the parent sialic acid, N-acetylneuraminic acid. Defects in Sialate O-acetyltransferase are a cause of autoimmune disease type 6 (AIS6). Individuals manifesting susceptibility to autoimmune disease type 6 can suffer from juvenile idiopathic arthritis, rheumatoid arthritis, multiple sclerosis, Sjogren syndrome, systemic lupus erythematosus, type 1 diabetes, ulcerative colitis, and Crohn disease.

References

- 1.Mandal C, *et al.* (2012) Regulation of O-acetylation of sialic acids by sialate-O-acetyltransferase and sialate-O-acetyltransferase activities in childhood acute lymphoblastic leukemia. *Glycobiology*. 22(1): 70-83.
- 2.Tsai S, *et al.* (2011) Transcriptional profiling of human placentas from pregnancies complicated by preeclampsia reveals dysregulation of sialic acid acetyltransferase and immune signalling pathways. *Placenta*. 32 (2): 175-82.
- 3.Surolia I, *et al.* (2010) Functionally defective germline variants of sialic acid acetyltransferase in autoimmunity. *Nature*. 466 (7303): 243-7.

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