GENOVIS

SialEXO™

Lyophilized

STORE AT
-20°C

FOR RESEARCH USE ONLY

Instructions for Use

SialEXO™ Lyophilized 2000 units (G1-SM1-020)
Process 2 mg glycoprotein

DOWNLOAD INSTRUCTIONS FOR USE
www.genovis.com/ifu-G1-SM1

Lyophilized Enzyme Mix for Hydrolysis of Sialic Acids

The SialEXO products are sialidases for efficient desialylation of N- and O-glycosylated proteins. SialEXO Lyophilized consists of two sialidases, each having a unique activity, and they work simultaneously. One enzyme has a broad activity for α2-3, α2-6 and α2-8-linked sialic acids, and the other one quickly hydrolyzes sialic acids with α2-3-linkages. SialEXO Lyophilized removes all sialic acids on native proteins within two hours.

SialEXO hydrolyzes glycoproteins under native conditions and displays activity at pH 6.5-9.0.

The enzymes in SialEXO Lyophilized are derived from *Akkermansia muciniphila* and expressed in *E. coli*. Both enzymes contain a His-tag and the molecular weights of the enzymes are 43 kDa and 66 kDa.

UNIT DEFINITION

One unit SialEXO Lyophilized hydrolyzes sialic acids from ≥ 90% of 1 µg glycoprotein (fetuin) when incubated in 20 mM Tris pH 6.8 at 37°C for 2 hours.

CONTENT AND STORAGE

SialEXO Lyophilized is supplied lyophilized in TBS, pH 7.6, with no preservatives added.

SialEXO Lyophilized is shipped at ambient temperature, and should be stored at -20°C upon arrival.

After reconstitution, SialEXO Lyophilized is stable for at least 1 month at +4-8°C.

SialEXO is for R&D use only.

QUALITY CONTROL

SialEXO Lyophilized is tested to meet the specifications and lot-to-lot consistency.

SialEXO Lyophilized is tested for absence of microbial contamination with blood agar plates, Sabouraud dextrose agar plates and fluid thioglycollate medium.

YOU MIGHT ALSO BE INTERESTED IN

SialEXO™ Immobilized
Immobilized enzyme mix for hydrolysis of sialic acids in spin columns

OpeRATOR™
O-glycan-specific protein digestion

GalactEXO®
Hydrolysis of β1-3,4 galactose

GalNAcEXO®
Hydrolysis of α-linked GalNAcs

FucosEXO®
Hydrolysis of α1-2,3,4 fucose

OmniGLYZOR®
Hydrolysis of N- and mucin-type O-glycans

Preparations

Additional Materials Required

- Reaction buffer: 20 mM Tris, pH 6.8.[1]

1. SialEXO displays high activity in buffers at pH 6.5-9.0.

Hydrolysis of Sialic Acids

Sample Preparation
Prepare the glycoprotein in the reaction buffer. The final protein concentration in the digestion reaction should be 0.1-5 mg/ml.

1. Prepare SialEXO

1.1 Reconstitute SialEXO in 50 µl ddH_2O to a concentration of 40 units/µl.

2. Add SialEXO

2.1 Add 1 unit SialEXO / 1 µg glycoprotein or to 1 pmol oligosaccharides.[2]

3. Enzymatic Reaction

3.1 Incubate for 30 min-2 h at 37°C.[3]

2. A higher enzyme concentration may increase digestion efficiency of individual glycoproteins or oligosaccharides. This requires optimization.
3. Longer incubation times may be required depending on the glycoprotein.

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