SialEXO™

GENOVIS

INSTRUCTIONS

Version 17.1.3

Instructions for product no:

G1-SM1-020	2000 units	Desialylation of up to 2 mg glycoprotein

Content and Storage

SialEXO™ is supplied lyophilized in TBS pH 7.6, with no preservatives added.
SialEXO™ is shipped cold and should be stored at -20 °C upon arrival. After reconstitution SialEXO™ is stable for 1 month at +4-8 °C.
SialEXO™ is for R&D use only.

Product Description

SialEXO™ is a mix of sialidases for efficient removal of sialic acids on O-glycosylated and N-glycosylated proteins. The mix is composed of two sialidases for highly efficient hydrolysis of α2-3, α2-6 or α2-8 bonds.
SialEXO™ hydrolyzes glycoproteins under native conditions and displays a high activity in a broad pH range, 6.5 to 9.

The enzymes in SialEXO™ are derived from *Akkermansia muciniphila* and expressed in *E. coli*. SialEXO™ is composed of two sialidases with His-tags and the molecular weights of the components are 42.8 kDa and 65.7 kDa, respectively.

Unit Definition

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

Quality Control

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

Protocol

Additional Materials Required

Reaction buffer[1]: 20 mM Tris pH 6.8

Preparation of glycoprotein

Prepare the glycoprotein of interest in reaction buffer to a concentration of 0.1-5 mg/ml.

Removal of sialic acids

- Reconstitute SialEXO™ in 50 µl ddH_2O[2] to a concentration of 40 units / µl.
- Add SialEXO™ to the glycoprotein. Add **1 unit SialEXO™/ 1 µg glycoprotein**[3].
- Incubate at **37 °C for 30 min to 2 h**[4].

Optimization of enzyme concentrations and incubation time may be needed for a particular protein substrate.

Notes

1. SialEXO™ displays high activity in buffers at pH 6.5-9.
2. To prevent microbial contamination, sodium azide can be added to the solution to a final concentration of 0.02 - 0.05% (w/v).
3. A higher enzyme concentration may increase digestion efficiency of individual glycoproteins. This requires optimization.
4. Longer incubation times may be required depending on the glycoprotein.

Customer Service USA Phone: 617-444-8421 I info@genovis.com I Genovis AB, 245 First Street, Cambridge, MA 02142, USA
Customer Service Europe Phone: 0046 (0)46 10 12 30 I info@genovis.com I Genovis AB, Box 790, SE-220 07 Lund, Sweden
Support support@genovis.com **Order** order@genovis.com I Fax: 0046 (0)46 12 80 20

www.genovis.com

SialEXO™
Limited Use Label License: Research Use Only

Customer Service USA Phone: 617-444-8421 I info@genovis.com I Genovis AB, 245 First Street, Cambridge, MA 02142, USA
Customer Service Europe Phone: 0046 (0)46 10 12 30 I info@genovis.com I Genovis AB, Box 790, SE-220 07 Lund, Sweden
Support support@genovis.com **Order** order@genovis.com I Fax: 0046 (0)46 12 80 20