



Certificate of Analysis

LudgerTag Sialic Acid DMB Labeling Kit

Cat. #: LT-KDMB-A1

Batch #: B5AG-01

Size: 1 set of labeling reagents per kit

This kit conforms to the specifications given in Ludger document # LT-KDMB-A1-Guide.

Each kit contains the following components:

Quantity per Kit	Catalogue number	Batch number	Component Name
2	LT-ACETIC2M-01	B58Q-02	Acetic Acid 2Molar
1	LT-MERCAPTO-01	B58R-01	Mercaptoethanol
1	LT-DITHIO-01	B586-01	Sodium Dithionite
1	LT-DMB-01	B58J-02	DMB Dye
1	CM-SRP-01	B58O-05	Sialic Acid Reference Panel
1	CM-NEUAC-01	B58K-05	N-Acetyl Neuraminic acid
1	CM-NEUGC-01	B58L-01	N-Glycolyl Neuraminic acid

Expiry Date: 19th Aug 2017

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Sialic Acid Reference Panel

Cat. #: CM-SRP-01

Batch: B58O-05

Size: approx. 1.25 nmols

The sialic acid reference panel is a mixture of different sialic acids forms (as detailed on chromatogram below) sourced from bovine submaxillary mucin.

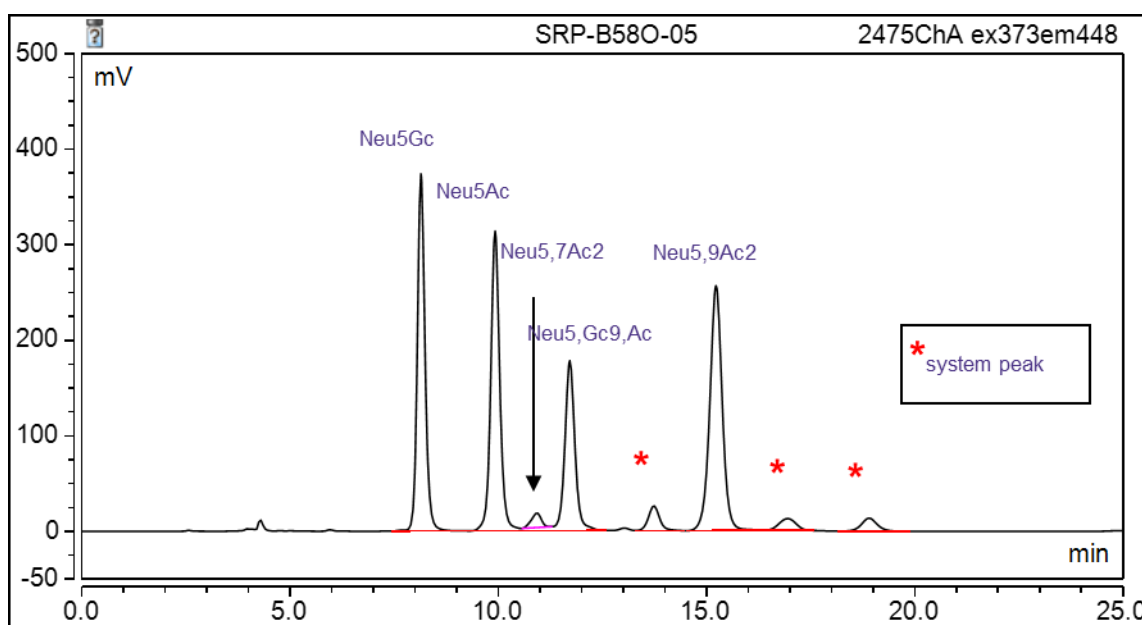


Figure 1: LudgerSep R1 HPLC profile of DMB labeled Sialic acid Reference Panel (Cat. #: CM-SRP-01, Batch B58O-05).

DMB labeled SRP peaks seen above eluted under the following HPLC conditions:

Column: LudgerSep R1 (LS-R1-4.6X150, B43I-04)

Flow: 0.5 ml/min.

Temperature: 30 °C

Solvent: Methanol:Acetonitrile:Water (7:9:84 v/v)

Fluorescence detector: Waters 2475 Excitation wavelength: 373 nm Emission wavelength: 448 nm



Certificate of Analysis

NeuAc Standard

Cat. #: CM-NEUAC-01

Batch: B58K-05

Size: 1.06 ± 0.05 nmol

The N-acetylneuraminic acid standard is a quantitative standard of NIST-F and USP traceable Neu5Ac monosaccharide.

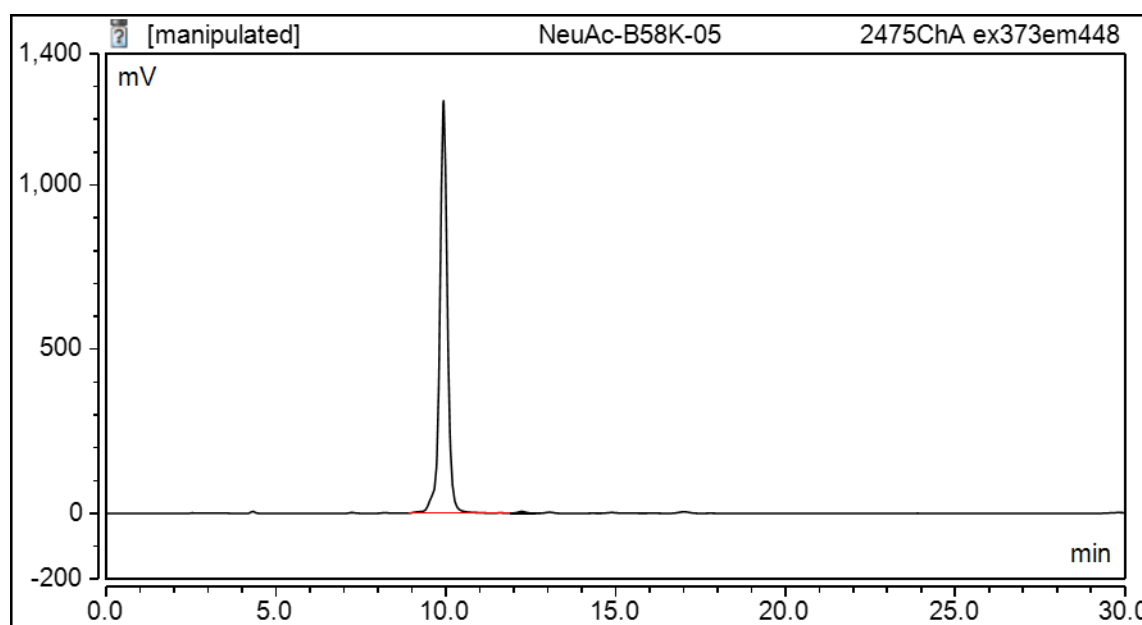


Figure 1: LudgerSep-R1 HPLC profile of 1,2-diamino-4,5-methylenedioxybenzene.2HCl (DMB) labeled NeuAc standard (Cat. #: CM-NEUAC-01, Batch B58K-05).

Accuracy: This analysis was performed on 12 vials of CM-NEUAC-01.

The dispensed amount was determined as 1.06 ± 0.05 nmol NeuAc per vial.

Values are in nmols $\pm 95\%$ confidence interval.



DMB labeled sialic acid standards eluted under the following HPLC conditions:

Column: LudgerSep R1 (Cat. #: LS-R1-4.6x150) B43I-04

Flow: 0.5 ml/min.

Temperature: 30 °C

Solvent A: methanol:acetonitrile:water (7:9:84)

Gradient: 0-10 min: 100% Solvent A

HPLC: Waters 2

Detector: Waters 2 FD

Excitation wavelength: 373 nm

Emission wavelength: 448 nm



Certificate of Analysis

NeuGc Standard

Cat. #: CM-NEUGC-01

Batch: B58L-01

Size: 1.10 ± 0.05 nmol

The N-glycolylneuraminic acid standard is a quantitative standard of NIST-F and USP traceable Neu5Gc monosaccharide.

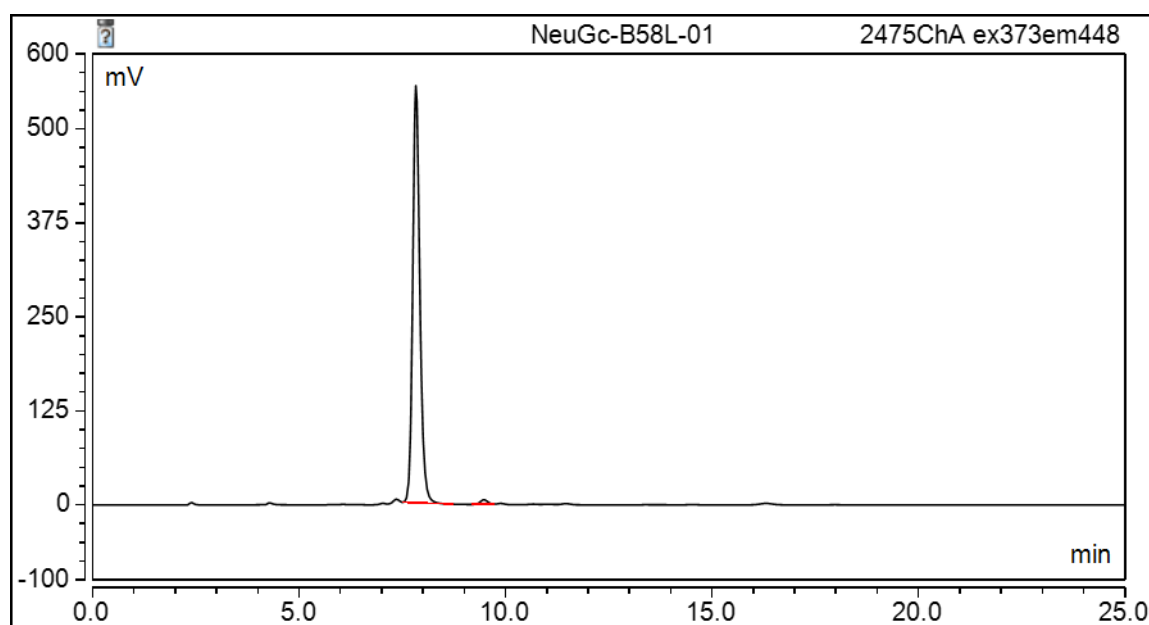


Figure 1: LudgerSep-R1 HPLC profile of 1,2-diamino-4,5-methylenedioxybenzene.2HCl (DMB) labeled NeuGc standard (Cat. #: CM-NEUGC-01, Batch B58L-01).

Accuracy: This analysis was performed on 12 vials of CM-NEUGC-01.

The dispensed amount was determined as 1.10 ± 0.05 Nmole NeuGc per vial.

Values are in Nmols $\pm 95\%$ confidence interval.



DMB labeled sialic acid standards eluted under the following HPLC conditions:

Column: LudgerSep R1 (Cat. #: LS-R1-4.6x150) B43I-04

Flow: 0.5 ml/min.

Temperature: 30 °C

Solvent A: methanol:acetonitrile:water (7:9:84)

Gradient: 0-10 min: 100% Solvent A

HPLC: Waters 2

Detector: Waters 2 FD

Excitation wavelength: 373 nm

Emission wavelength: 448 nm