



Certificate of Analysis

LudgerTag Sialic Acid DMB Labeling Kit

Cat. #: LT-KDMB-A1

Batch #: B79P-03

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	B774-01	AceticAcid 2Molar
1	LT-MERCAPTO-01	B78U-02	Mercaptoethanol
1	LT-DITHIO-01	B79B-01	Sodium Dithionite
1	LT-DMB-01	B76S-01	DMB Dye
1	CM-SRP-01	B74J-01	Sialic Acid Reference Panel
1	CM-NEUAC-01	B753-03	N-Acetyl Neuraminic acid
1	CM-NEUGC-01	B75B-01	N-Glycolyl Neuraminic acid

Expiry Date: June 2019

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Sialic Acid Reference Panel

Cat. #: CM-SRP-01

Batch: B74J-01

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.

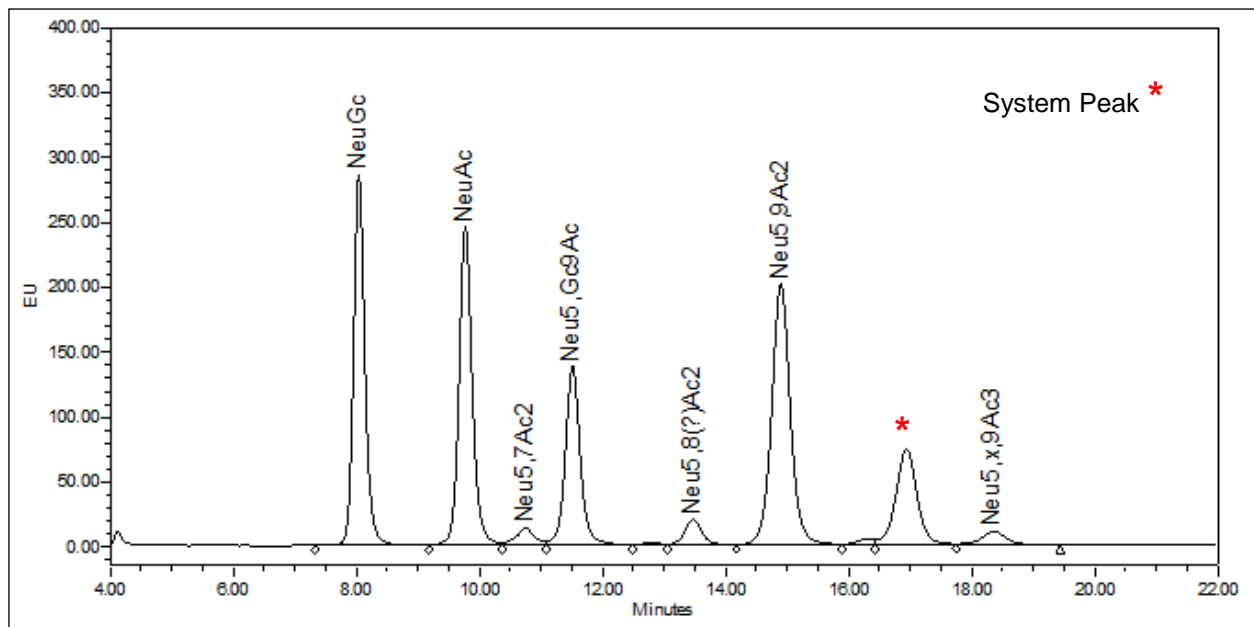


Figure 1: LudgerSep UR2 HPLC profile of DMB labeled Sialic acid Reference Panel (Cat. #: CM-SRP-01, Batch B74J-01).

Ludger

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

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

Flow: 0.5 ml/min.

Temperature: 30 °C

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

Solvent B: acetonitrile

Gradient:

Time (min)	%B
0.0	0.0
19.0	0.0
19.5	90.0
23.5	90.0
24.0	0.0
30.0	0.0
35.0	0.0

Detector: Fluorescence

Excitation wavelength: 373 nm

Emission wavelength: 448 nm

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NeuAc Standard

Cat. #: CM-NEUAC-01

Batch: B753-03

Size: 1.04 ± 0.03 nmol

Expiry Date: 01 Jun 2022

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

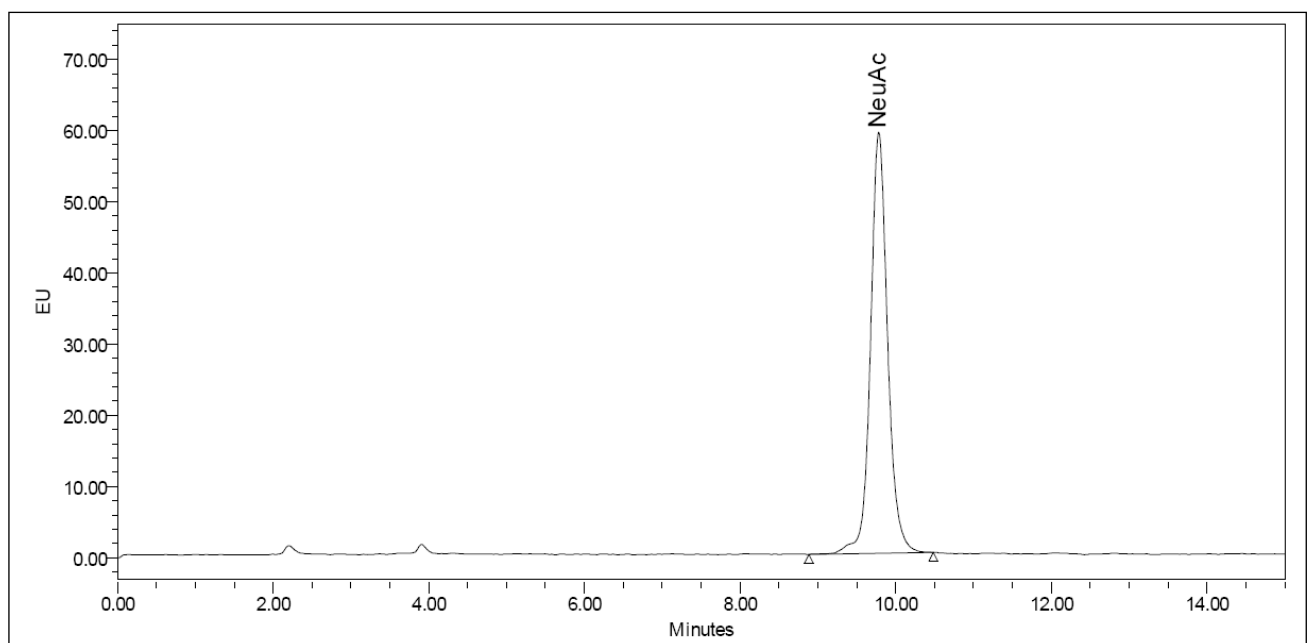


Figure 1: LudgerSep-R1 HPLC profile of 1,2-diamino-4,5-methylenedioxybenzene.2HCl (DMB) labeled NeuAc standard (Cat. #: CM-NEUAC-01, Batch B753-03).

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

The dispensed amount was determined as 1.04 ± 0.03 nmol NeuAc per vial.

Values are in Nmols \pm standard deviation.

Ludger

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

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

Flow: 0.5 ml/min.

Temperature: 30 °C

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

Solvent B: acetonitrile

Gradient:

Time (min)	%B
0.0	0.0
19.0	0.0
19.5	90.0
23.5	90.0
24.0	0.0
30.0	0.0
35.0	0.0

Detector: Fluorescence

Excitation wavelength: 373 nm

Emission wavelength: 448 nm

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NeuGc Standard

Cat. #: CM-NEUGC-01

Batch: B75B-01

Size: 1.11 ± 0.04 nmol

Expiry Date: 01 Jun 2022

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

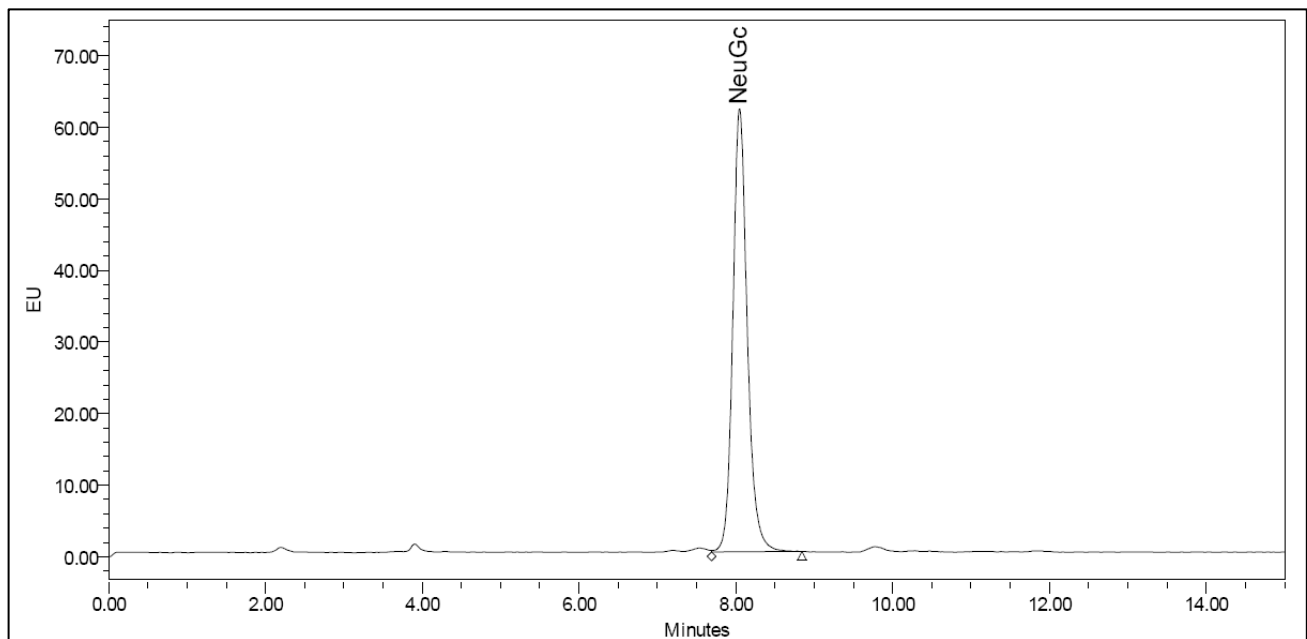


Figure 1: LudgerSep-R1 HPLC profile of 1,2-diamino-4,5-methylenedioxybenzene.2HCl (DMB) labeled NeuGc standard (Cat. #: CM-NEUGC-01, Batch B75B-01).

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

The dispensed amount was determined as 1.11 ± 0.04 Nmole NeuGc per vial.

Values are in Nmols \pm standard deviation.

Ludger

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

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

Flow: 0.5 ml/min.

Temperature: 30 °C

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

Solvent B: acetonitrile

Gradient:

Time (min)	%B
0.0	0.0
19.0	0.0
19.5	90.0
23.5	90.0
24.0	0.0
30.0	0.0
35.0	0.0

Detector: Fluorescence

Excitation wavelength: 373 nm

Emission wavelength: 448 nm