



## Certificate of Analysis

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### LudgerTag™ Sialic Acid DMB Labeling Kit

Cat. #: LT-KDMB-A1

Batch: B86D-01

Size: 1 sets of labeling reagents per kit

Expiry Date: 15 Mar 2020

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

Each kit contains the following components:

Quantity per Kit	Cat #	Batch #	Component Name
2	LT-ACETIC2M-01	B84D-02	Acetic Acid 2Molar
1	LT-MERCAPTO-01	B83F-01	Mercaptoethanol
1	LT-DITHIO-01	B845-05	Sodium Dithionite
1	LT-DMB-01	B85V-01	DMB Dye
1	CM-SRP-01	B84A-01	Sialic Acid Reference Panel
1	CM-NEUAC-01	B818-01	N-Acetyl Neuraminic acid
1	CM-NEUGC-01	B81G-01	N-Glycolyl Neuraminic acid

## Certificate of Analysis

### NeuAc Standard

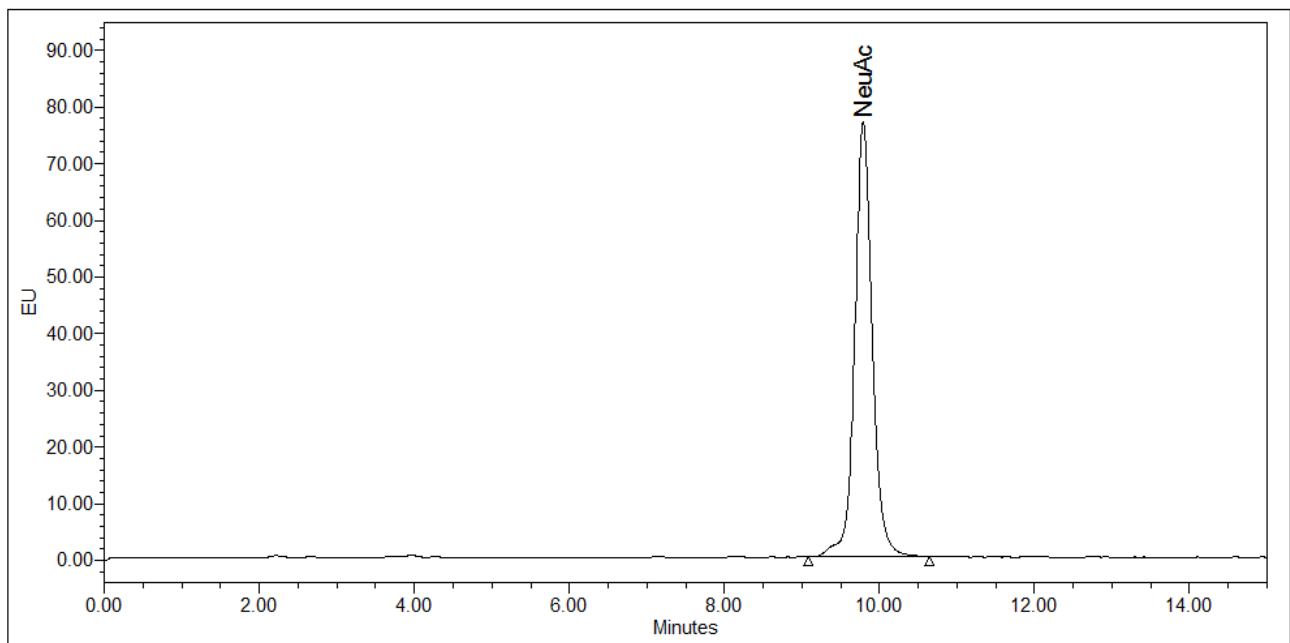
Cat. #: CM-NEUAC-01

Batch: B818-01

Size:  $0.99 \pm 0.04$  nmol

Expiry Date: 09 Jan 2023

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 B818-01).

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

**The dispensed amount was determined as  $0.99 \pm 0.04$  nmol NeuAc per vial.**

Values are in nmols  $\pm$  standard deviation.

*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

## Certificate of Analysis

## NeuGc Standard

Cat. #: CM-NEUGC-01

Batch: B81G-01

Size :  $1.05 \pm 0.06$  nmol

Expiry Date: 17 Jan 2023

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

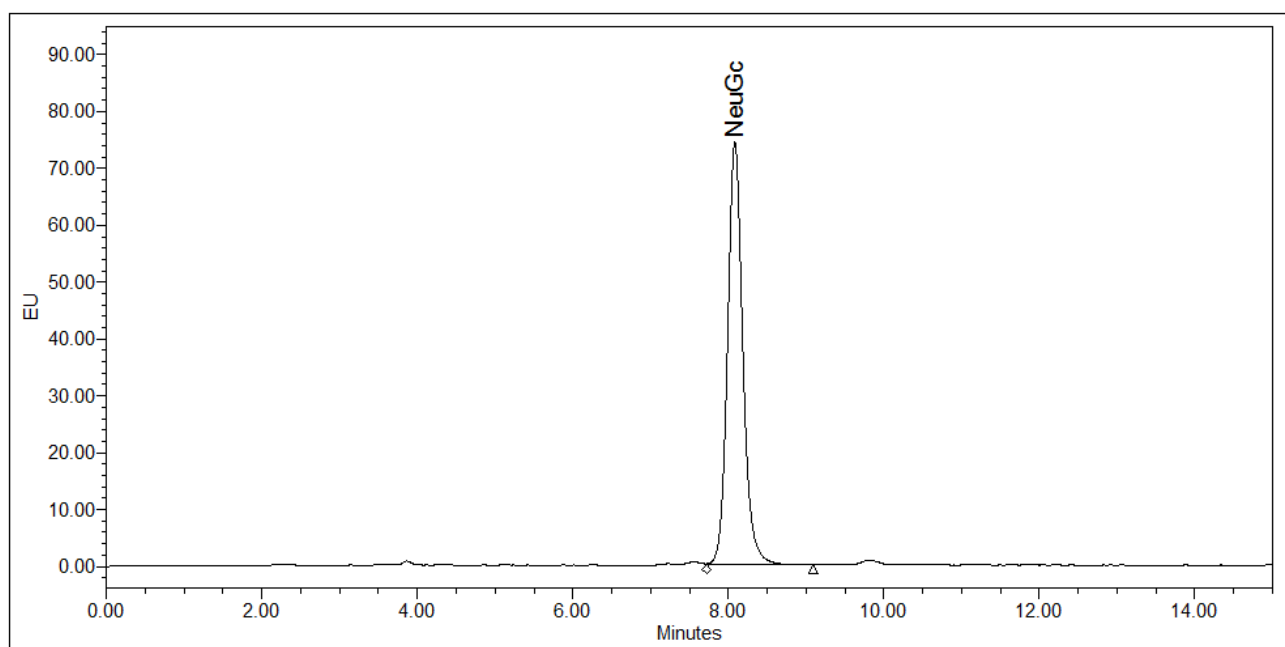


Figure 1: LudgerSep-R1 HPLC profile of 1,2-diamino-4,5-methylenedioxybenzene.2HCl (DMB) labeled NeuGc standard (Cat. #: CM-NEUGC-01, Batch B81G-01).

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

**The dispensed amount was determined as  $1.05 \pm 0.06$  nmol NeuGc per vial.**

Values are in nmols  $\pm$  standard deviation.

***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

## Certificate of Analysis

### Sialic Acid Reference Panel

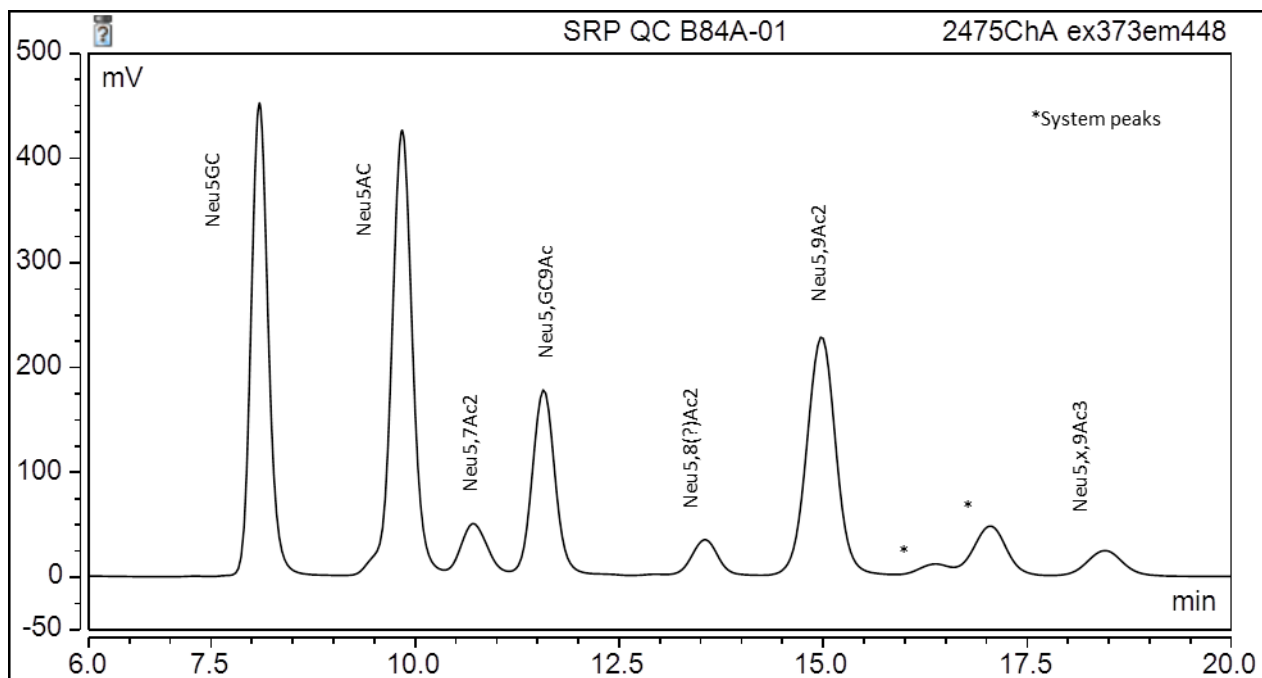
Cat. #: CM-SRP-01

Batch: B84A-01

Size: approx. 1.25 nmols

Expiry Date: 11 Apr 2023

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 B84A-01).

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

**Column:** LudgerSep UR2 (1.9µm, 2.1x100mm)

**Flow:** 0.35 ml/min.

**Temperature:** 30 °C

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

**Fluorescence detector:** Dionex U3000

**Excitation wavelength:** 373 nm

**Emission wavelength:** 448 nm