



## Certificate of Analysis

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### LudgerTag Sialic Acid DMB Labeling Kit

Cat. # : LT-KDMB-A1

Batch # : B72K-01

Size : 1 set of labeling reagents per kit

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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	Catalogue number	Batch number	Component Name
1	LT-ACETIC2M-01	B6C8-03	AceticAcid 2Molar
1	LT-MERCAPTO-01	B62C-01	Mercaptoethanol
1	LT-DITHIO-01	B69E-02	Sodium Dithioninte
1	LT-DMB-01	B6C8-01	DMB Dye
1	CM-SRP-01	B71N-07	Sialic Acid Reference Panel
1	CM-NEUAC-01	B71V-01	N-Acetyl Neuraminic acid
1	CM-NEUGC-01	B72D-03	N-Glycolyl Neuraminic acid

Expiry Date: Dec 2018

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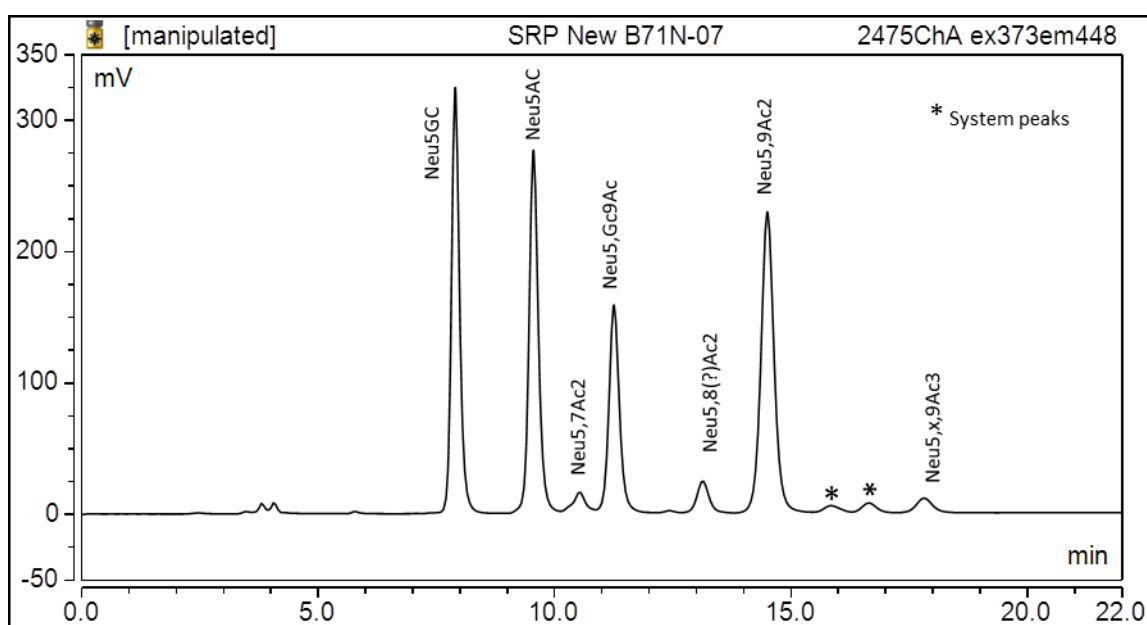
### Sialic Acid Reference Panel

Cat. #: CM-SRP-01

Batch: B71N-07

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 B71N-07).

***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

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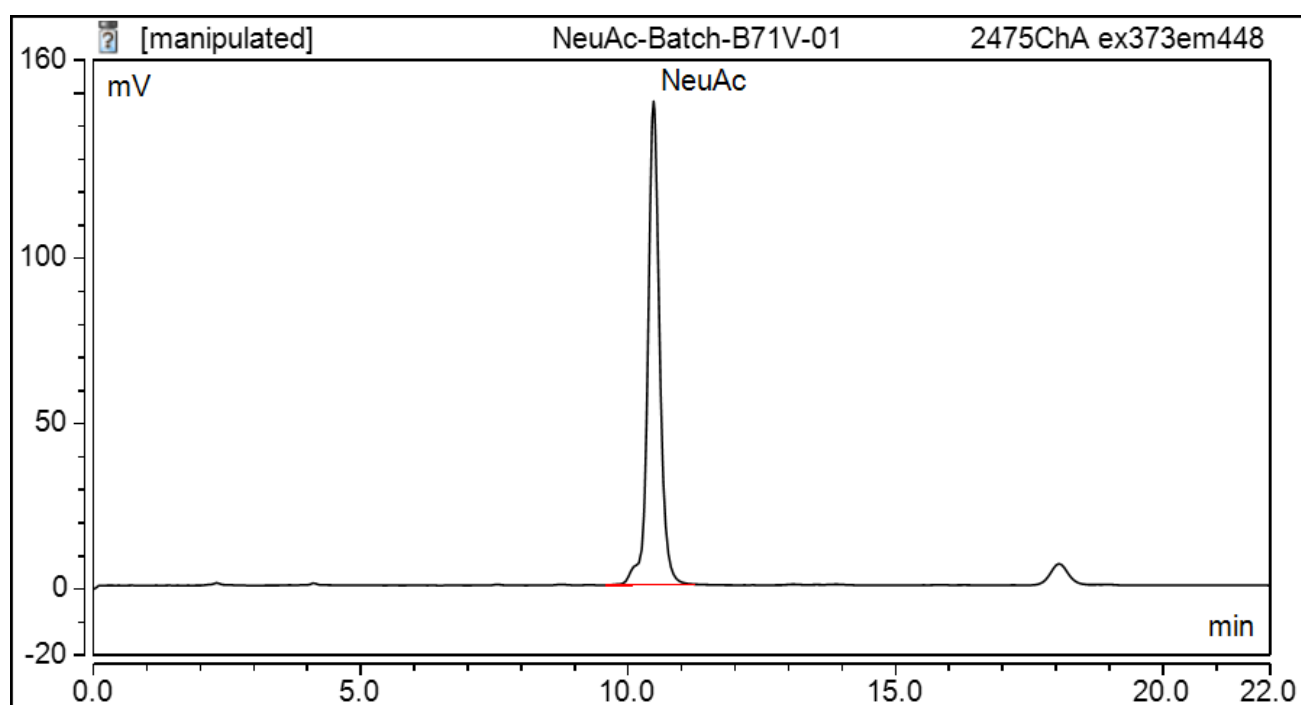
### NeuAc Standard

Cat. #: CM-NEUAC-01

Batch: B71V-01

Size:  $1.01 \pm 0.05$  nmol

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



**Figure 1:** LudgerSep-uR2 HPLC profile of 1,2-diamino-4,5-methylenedioxybenzene.2HCl (DMB) labeled NeuAc standard (Cat. #: CM-NEUAC-01, Batch B71V-01).

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

**The dispensed amount was determined as  $1.01 \pm 0.05$  Nmole NeuAc per vial.**

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



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

Column: LudgerSep uR2 (Cat. #: LS-uR2-2.1x100)

Flow: 0.5 ml/min.

Temperature: 30 °C

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

Gradient: 0 min: 100% Solvent A

19.5 min: 10% A

24 min: 100% A

36 min: 100% A

HPLC: Waters Aquity UHPLC Detector: Waters FLV

Excitation wavelength: 373 nm Emission wavelength: 448 nm

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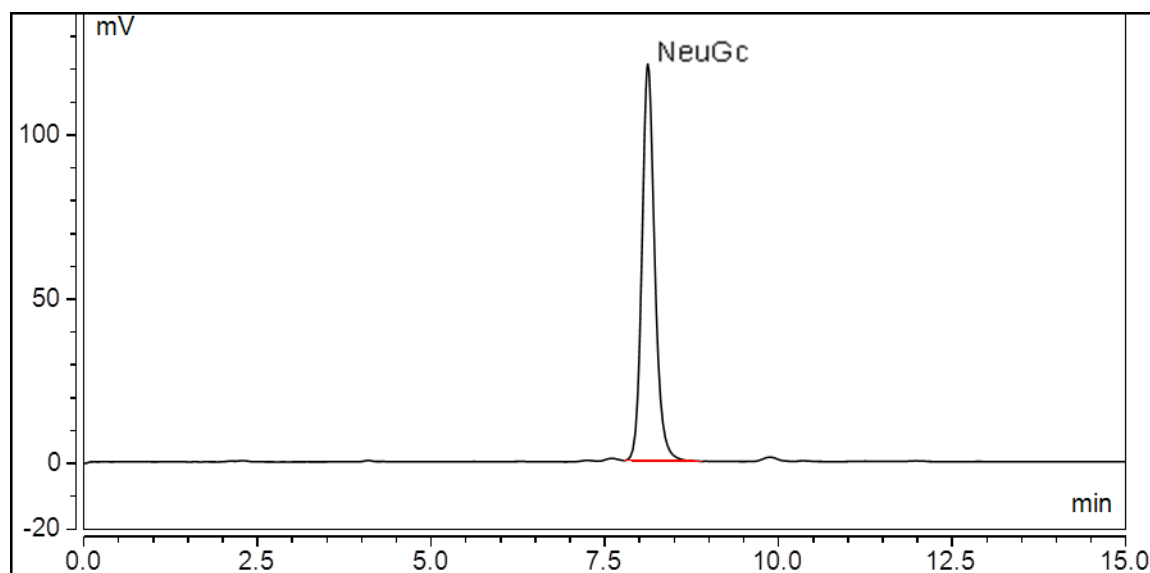
### NeuGc Standard

Cat. #: CM-NEUGC-01

Batch: B72D-03

Size:  $1.09 \pm 0.04$  nmol

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



**Figure 1:** LudgerSep-uR2 HPLC profile of 1,2-diamino-4,5-methylenedioxybenzene.2HCl (DMB) labeled NeuGc standard (Cat. #: CM-NEUGC-01, Batch B72D-03).

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

**The dispensed amount was determined as  $1.09 \pm 0.04$  nmol 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)

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