

Sialic Acid Stabilizing Kit for Linkage Isomer Discrimination SialoCapper-ID Kit



SialoCapper[™]-ID Kit reliably stabilizes sialic acid residues, enabling linkage isomer discrimination.

Our technology prevents the decomposition of sialic acid residues and ionization suppression. Furthermore, makes it possible to discriminate the linkage isomers of sialic acids by mass spectrometry.

Features

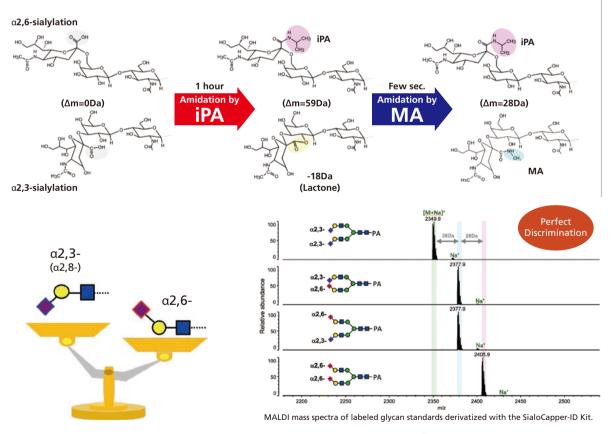
- •Simple analysis of sialic acid linkage isomer
- Improving sialoglycan sensitivity
- Versatility and scalability

Sialic Acid Linkage-Specific Alkylamidation (SALSA method)



This is our patented technique that allows stabilization by chemical modification while changing the mass of the sialic acid depending on the linkage types. As a result, the linkage isomers can be discriminated by mass spectrometry. The SialoCapper-ID Kit is a novel reagent kit for glycan pretreatment that simplifies the SALSA procedure.

Reaction scheme of SALSA method



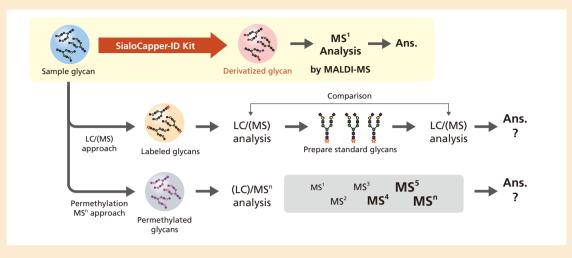
Various types of mass spectrometers can be used for measuring glycans derivatized with the SialoCapper-ID Kit



The SALSA method involved in the SialoCapper-ID Kit was developed by Shimadzu corporation and improved in cooperation with Prof. Jun-Ichi Furukawa and Dr. Hisatoshi Hanamatsu at Hokkaido University.

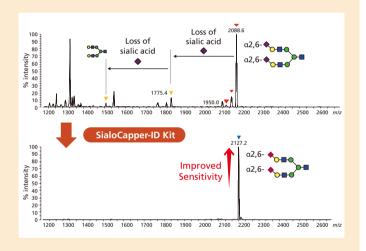
Simple analysis of sialic acid linkage isomer

The linkage types of sialic acid can be determined from MS¹ analysis by using SialoCapper-ID Kit. This eliminates the need for separation by LC, preparation of glycan standards, and MS/MS analysis. This kit enables highly reliable measurement data acquisition and labor-saving experiments.



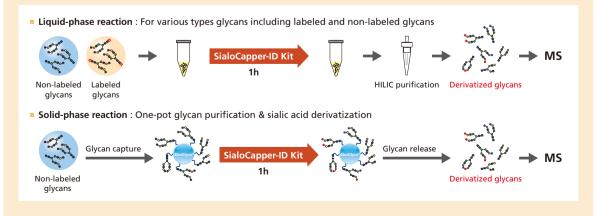
Improving sialoglycan sensitivity

SialoCapper-ID Kit improves sialoglycan sensitivity while stabilizing sialic acids and reducing their degradation. It also makes it easier to measure trace samples such as biological samples. The mass spectrum becomes simpler and glycan analysis becomes easier.



Versatility and scalability

SialoCapper-ID Kit can be used in combination with previous experimental procedures. Liquid-phase reaction is effective for both labeled and non-labeled glycans. In the solid-phase reaction used in combination with glycan binding beads such as BlotGlyco[®], glycan purification and sialic acid derivatization can be achieved simultaneously.



▶

Specifications : SialoCapper-ID Kit

Kit Contents	Reagent A(1 bottle), B(10 tubes), C(1 bottle)		
	Sufficient for 10 experiments/kit		
Number of samples	• Solid-phase reaction: Sufficient for 10 separate samples/experiment, 100 samples/kit		
	• Liquid-phase reaction: sufficient for 50 separate samples/experiment, 500 samples/kit		
Derivatization Targets	Released N-linked glycans (including labeled forms)		
Storage Temperature	2-8 °C		

• For solid-phase reaction, glycan purification beads are required but not included in SialoCapper-ID Kit.

Recommended: Sumitomo Bakelite BlotGlyco® BS-45414 (for 10 samples), BS-45415 (for 50 samples), BS-45407 (for 100 samples)

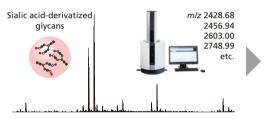
• For liquid-phase reaction, HILIC mode glycan purification columns or tips are required but not included in SialoCapper-ID Kit.

Glycan composition estimation software

Supporting Tool for SialoCapper-ID Kit



The Supporting Tool for SialoCapper-ID Kit can estimate glycan composition from given m/z values in the results of mass spectrometry and deal with the mass change of sialic acid residues by sialic acid derivatization such as SALSA method.





Supporting Tool for SialoCapper-ID Kit

Mass(m/z, obs.) It	stensity Charge	Composition	Ion Species	Salt Formation	m/blcalc.)	Error(ppm)
2425.8800	6.0000	AA HertHenNAc@enuGc1a2.6-33NenuGc1a2.3-31	-#1+		2428.9128	18.5
2456.9400 (2	matches)					
2854,5000	A.333	Advisories the converties and the	lane -		2426.3148	100
2456 9400	0.0000	AA-HerdintenNAc4NerdGc3s2.6-32	-H+		2456.5641	1.7
2374.9700 (1)	match)					
2574,9700	0.0000	AA-HevSheitNAckthev1NauGc(s2.6-)1NauGc(s2.5-)1	-11+		2534,9707	0.3
2603.0000 (1 -	martich)					
2601.0000	0.0000	AA-HecSHeeNAckdHee1NeuGctstZ6-12	-He-		2603.0020	0.0
2748.9900 (1)	natch)					
2748.9900	0.0000	AA. HerdinieshiAc. Manufacia2.6 . (Neudicia2, 3-)2	-H+		27450347	96.2
2777.0300 (1 -	natch)					
2777.8900	e.0000	AA HextHeeNAc4NeuGcja2.6-(2NeuGcja2.3-)1	.H+		2777,0640	13.0
2822.0400 (2	matches)					
2822-0430	0.0000	AA HeathlechActoriesThieuScool 3-M	-11+		2822.0530	3.9
2822.0400	0.0000	1 AA HeatinesNAcSNeuGc(02,6-)2	.41+	· · · · · ·	2822.0763	12.9
3154.0700 (1 m	witch)					
3114.0700	0.0000	AA-HevBhenNAcSNeuGc(32.5-)/NeuGc(32.3-)2	-844		3134.960	33.5
· 1) 5034. (1)	natch)					
3435,1400	6.0000	AA HeelPheeNAckdHeeThieuGc(a2.3-13	-81+		3435,2729	38.7

Glycan composition candidates

Recommended specifications for computers

- Operating system: Windows® 10 Pro 64 bit (Japanese/English)
- Memory: More than 8 GB
- Storage: More than 256 GB
- Optical drive: DVD drive

*A computer is not included for installing the software.

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