

For LabSolutions™ LCMS

LC/MS/MS Method Package for Glycosaminoglycans



LCMS-8060NX

The study of Glycosaminoglycans (GAGs) or mucopolysaccharides, and enzymes involved in GAG metabolism is an important aspect of clinical research related to lysosomal storage. Quantitation of GAGs in bones, joints, the brain, heart, lungs, and other organs is a useful tool in this field of study. GAGs can be quantitated by measuring the sulfated disaccharides produced by enzymatic degradation of GAGs. The research group led by Hironori Kobayashi of Shimane University Hospital, Clinical Laboratory Division, has been instrumental in the development of methods for the detection of sulfated disaccharides by LC/MS.

The LC/MS/MS Method Package for Glycosaminoglycans contains LC/MS/MS analytical methods with optimized separation conditions and MS parameters for sulfated disaccharides derived from six important glycosaminoglycans. It also has example sample preparation protocols for blood spots, including enzymatic preparation. This method package can be used to analyze glycosaminoglycans while saving significant time in the development of sample preparation and analytical protocols.

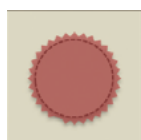
LC/MS/MS Method Package for Glycosaminoglycans

- Example sample preparation protocols for dried blood spots
- Analytical conditions for highly robust chromatography
- Optimized MS/MS parameters
- Methods compatible with LCMS-8060 series and LCMS-8060NX systems



Measures glycosaminoglycan-derived sulfated disaccharides **13 minutes**

Workflow from analyte extraction from dried blood spot to LC/MS/MS analysis

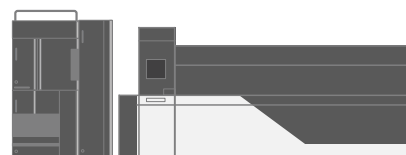


Dried Blood Spot

Extraction



Enzymatic Preparation



Provides Total Support from Sample Preparation to Analysis of Results

Sample preparation

HPLC separation

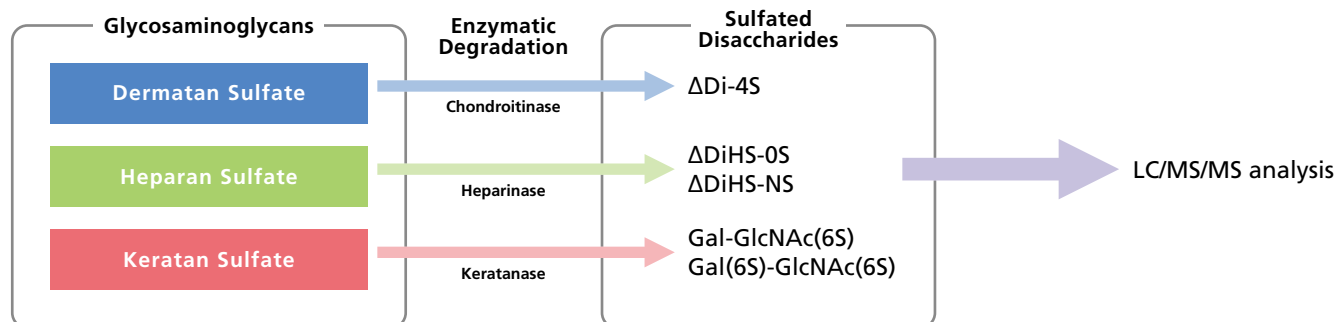
MS/MS analysis

Data processing

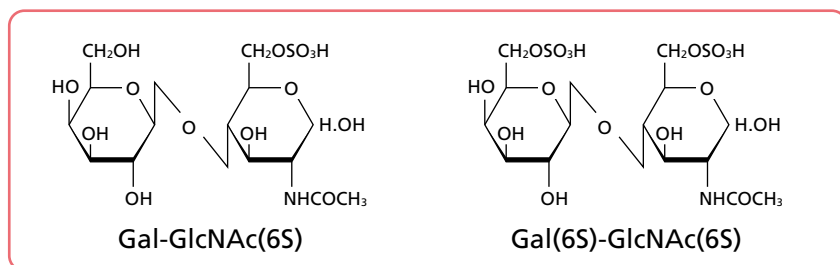
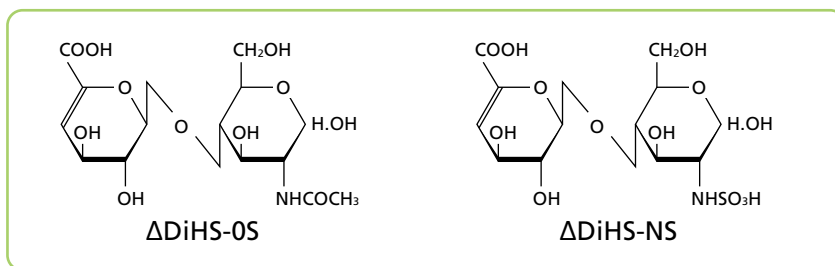
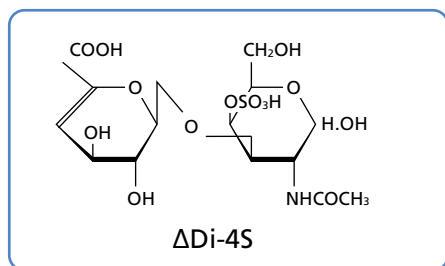
Results

LC/MS/MS Method Package for Glycosaminoglycans

Glycosaminoglycans and Sulfated Disaccharides



Examples of Sulfated Disaccharides Detected by this Method Package



Remarks and Precautions

1. Requires LabSolutions LCMS Ver. 5.113 or later.
2. This method package is intended for research use only. It may not be used for clinical diagnostic applications.

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