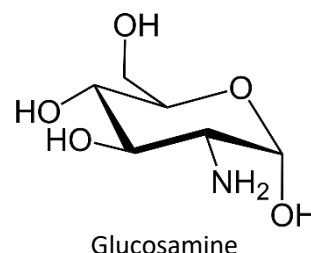


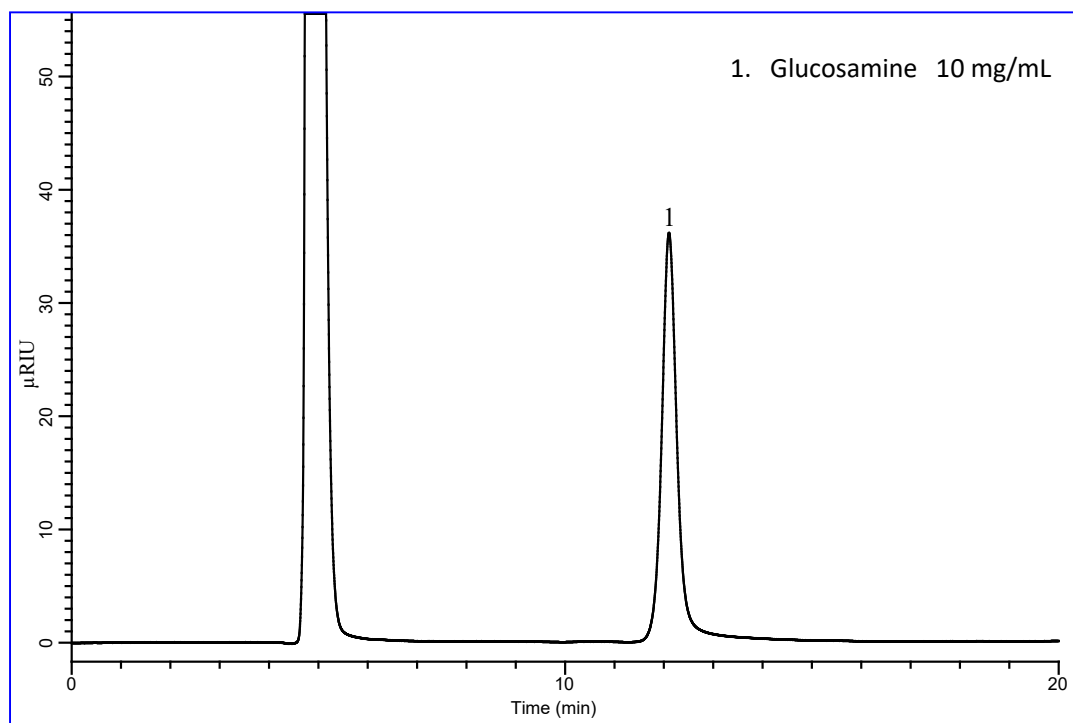
# Analysis of glucosamine using a differential index detector

Glucosamine is an amino sugar in which one of the hydroxy groups of glucose is replaced with an amino group, and is often used in health foods. At the 10th Edition Food Additive Official Formulation Study Group (3rd), a draft ingredient standard using liquid chromatography as a quantification method for glucosamine was decided. This time, we would like to introduce the analysis of glucosamine that complies with the draft component standard using the Hitachi HPLC system Chromaster. (K. Tanaka)

## Chemical Structures



## Standard solution measurement example



## Conditions

**Column** : InertSustain NH2  
(5 μm, 250 x 4.6 mm I.D.)

**Eluent** : A) CH<sub>3</sub>CN  
B) H<sub>2</sub>O  
A/B = 3/1, v/v

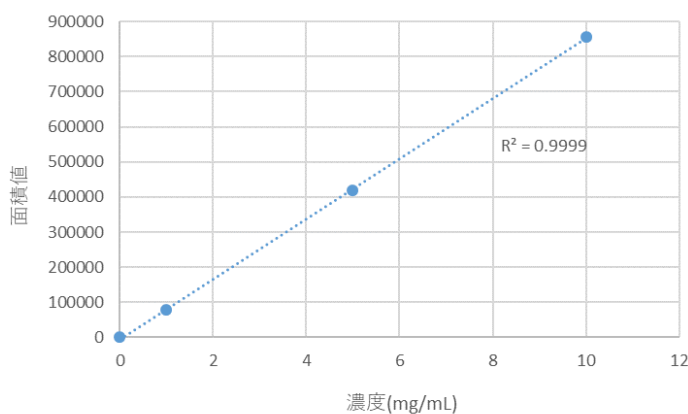
**Flow Rate** : 0.7 mL/min \*  
\* Adjust the flow rate so that the retention time of glucosamine is about 12 minutes.

**Col. Temp.** : 40 °C

**Detection** : RI

**Injection Vol.** : 10 μL

## Glucosamine calibration curve (0~10 mg/mL)



Food additives, such as preservatives, sweeteners, colorants, and flavors, are used in the manufacturing process of foods or for the purpose of processing and preserving foods. The Ministry of Health, Labor and Welfare has received an evaluation by the Food Safety Commission regarding the safety of food additives, and only when there is no risk of damaging human health, the Ministry of Health, Labor and Welfare approves the use after establishing the standard of ingredients and the standard of use. I am. The official food additive standard stipulates standards for ingredients of food additives, manufacturing standards, and methods for ensuring quality. (From the Ministry of Health, Labor and Welfare website)

## Product used

### ●Analytical column

InertSustain NH2 with 100% CH<sub>3</sub>CN

5 μm, 250 x 4.6 mm I.D.

Cat.No. 5020-89951

☆ This is a product (usually hexane / ethanol type) in which the encapsulation solvent at the time of shipment is changed to 100% acetonitrile. Recommended if you want to use it in HILIC mode.



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