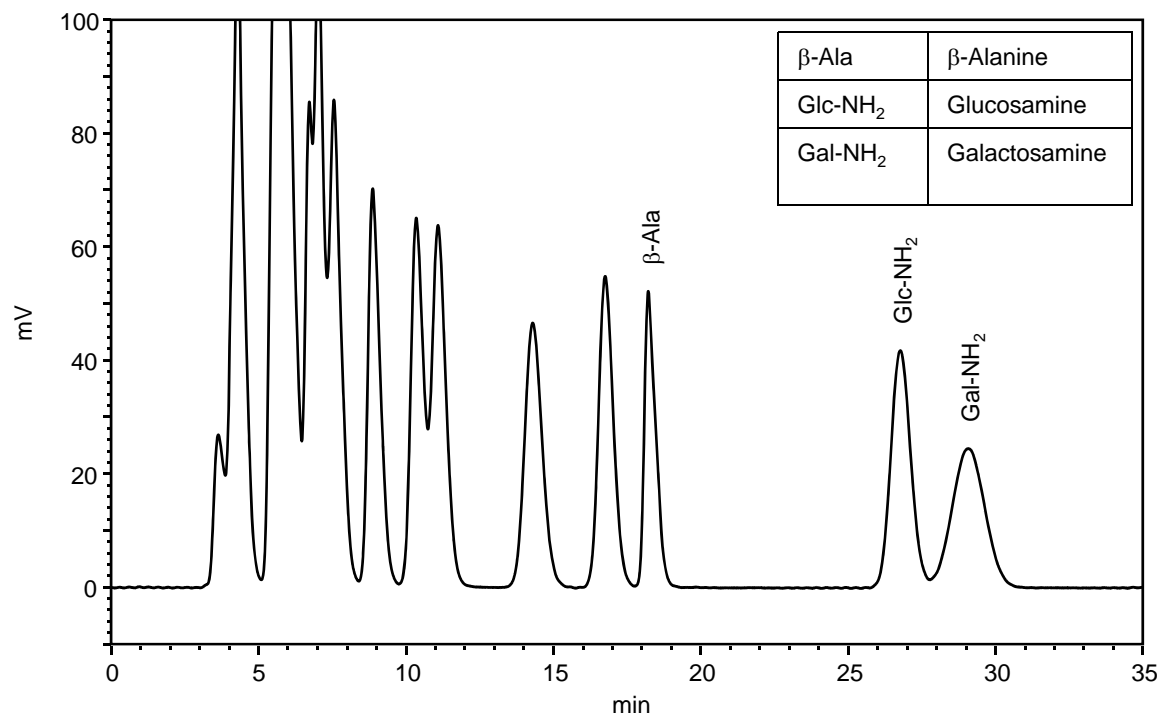


## Analysis of $\beta$ -Alanine, Glucosamine and Galactosamine (L-8900)

L-8900 Amino Acid Analyzer with the eluent for the special amino acid analysis, is shown.  $\beta$ -alanine is a structural isomer of alanine contained in protein. It is a free amino acid mainly found in muscle.

The acetyl forms of glucosamine and galactosamine widely exist in biological sphere as the constituents of chitin of crustacean and insects, proteoglycans such as hyaluron acid, and glycans on cell surfaces. Acetyl glucosamine and acetyl galactosamine mostly exist in the forms of glycans and are analyzed by an amino acid analyzer after hydrolyzed to glucosamine and galactosamine. These amino acids are also used as the supplements for the improvement of athletic ability and prevention and improvement of arthritis.



SAMPLE 20 $\mu$ L of Std. Soln. (2 nmol/ 20 $\mu$ L)	PRESSURE
PACKING MATERIAL #2620M [HITACHI]	TEMPERATURE 65°C
COLUMN SIZE for separation 4.6 mm I.D. $\times$ 80 mm [#2620M] for ammonia trap 4.6 mm I.D. $\times$ 40 mm [#2650L]	SEPARATION METHOD Ion Exchange
	DETECTOR VIS 570 nm, 440 nm
ELUENT L-8500 PS-Buffer	INSTRUMENTS L-8900 (Amino Acid Analyzer)
FLOW RATE 0.19 mL/min	

### NOTE

Reaction reagent = Ninhydrin coloring solution kit for L-8900 R1 / R2 = 50 / 50, Reaction reagent flow rate = 0.175 mL/min, Reaction unit temperature = 135 °C

The L-8900 special amino acid analysis method was used for this analysis.

For the eluent composition and method information, please contact our sales department, or our website separately by providing the instrument model name currently used

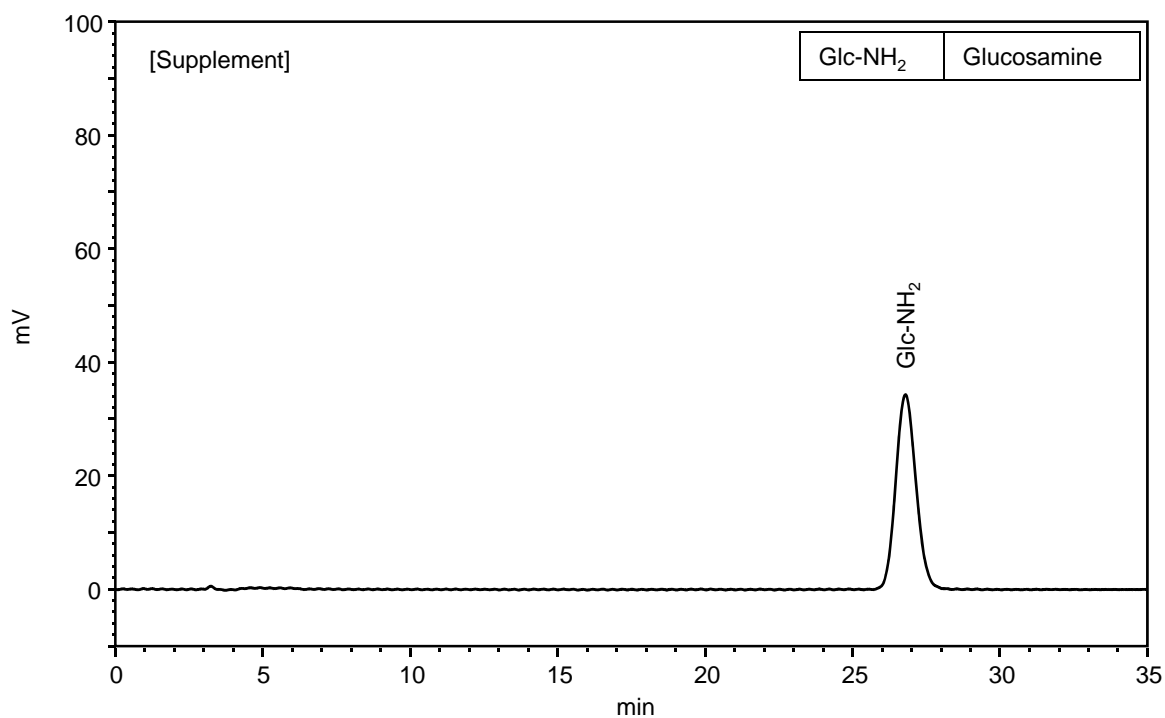
### KEY WORDS

Bio/Medical Science/Food/Pharmaceutical, Medicine/Pharmaceutical, Food, Medical Science/Pharmaceutical Science, Supplement, Amino Acid,  $\beta$ -Alanine, Glucosamine, Galactosamine, Ninhydrin Method, UV-VIS Spectrometry, Health, L-8900, Ion Exchange

High Performance Liquid  
Chromatograph (HPLC)

Sheet No. LC090052-01A

# Analysis of Glucosamine in Supplement (L-8900)



### [Preparation Method for Supplement]

Pulverize the sample (tablet)  
 ↓  
 Weigh and dissolve with 0.02 mol/L HCl  
 ↓  
 Mix with trichloroacetate at 1:1  
 ↓  
 Centrifuge 10,000 rpm, 10 min  
 ↓  
 Dilute to 25 times with 0.02 mol/L HCl  
 ↓  
 Sample for injection

### [Gradient Program]

min	B1(%)	B2(%)	B3(%)	B4(%)	B5(%)	B6(%)
0.0	0	0	95	5	0	0
5.0	0	0	95	5	0	0
5.1	0	0	70	30	0	0
30.0	0	0	70	30	0	0
30.1	0	0	0	100	0	0
31.0	0	0	0	100	0	0
31.1	0	0	0	0	0	100
42.0	0	0	0	0	0	100
42.1	0	0	95	5	0	0
98.0	0	0	95	5	0	0

High Performance Liquid  
Chromatograph (HPLC)

Sheet No. LC090052-02A