

Analysis of Anserine and Carnosine (Ans, Car short analysis method)

Anserine (Ans) and Carnosine (Car) are called imidazole dipeptides and have effects such as antioxidant, anti-fatigue, and lowering of uric acid level, so their use has been attracting attention in recent years. We introduced an example of analysis of Ans and Car in chicken in AS/AAA-014.

Ans and Car have a high affinity for cation exchange resins and have a long elution time in an analytical method using cation exchange chromatography. Therefore, there is a problem that it takes a long time to analyze the conventional simultaneous amino acid analysis method.

In this report, we will introduce Ans, Car short analysis method that shortens the analysis time by focusing on Ans and Car using LA8080 HIGH SPEED AMINO ACID ANALYZER (AminoSAAYA). The analysis time, which took more than 100 minutes with the simultaneous analysis method (Physiological Fluid Analysis Method, 40-component free amino acids analysis), can be reduced to 10 minutes, and the efficiency of analysis can be improved.



**LA8080 HIGH SPEED
AMINO ACID ANALYZER
(AminoSAAYA)**

Analysis of Amino Acid Standard Solution

- ✓ You can analyze anserine and carnosine in a short time (10 minutes).
- ✓ You can use the same column as the simultaneous analysis (Physiological Fluid Analysis Method).

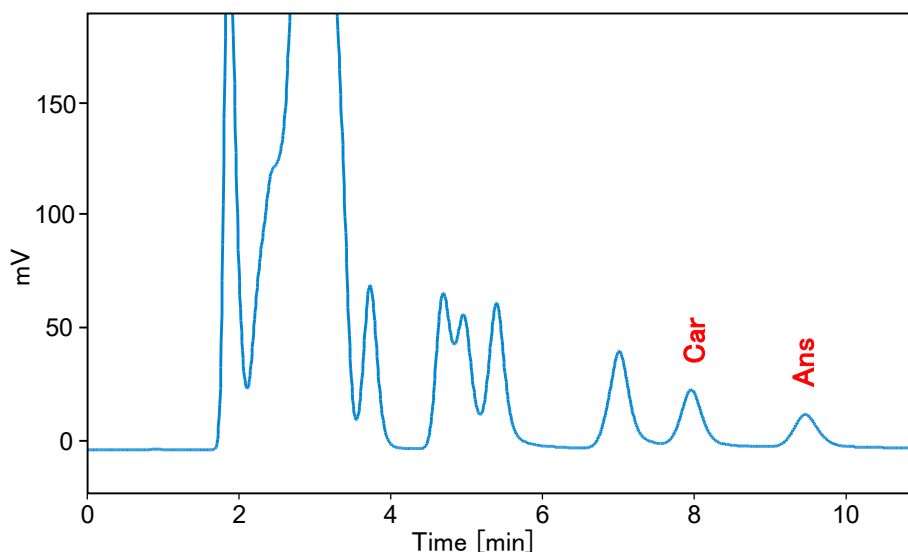


Fig.1 Analysis of Amino Acid Standard Solution

Table 1. Analytical Conditions for Ans, Car short analysis method

Column	#2622PF 4.6 mm I.D. × 60 mm	Reaction reagent	Ninhydrin Reagent Wako Amino Acid Automated Analyzer Kit (ID code: For Hitachi) (*)
Ammonia filter column	#2650L 4.6 mm I.D. × 40 mm	Reaction reagent flow rate	0.30 mL/min
Eluent	MCI buffer PF-Kit (*) B5: 0.1 mol/L Lithium borate buffer	Reaction temperature	135 °C
Flow rate	0.35 mL/min	Detection wavelength	VIS 440 nm, 570 nm
Column temperature	90 °C	Injection volume	20 µL

(*) FUJIFILM Wako Pure Chemical Corporation

NOTE: All data on this report are examples of measurement; the individual values are NOT guaranteed.