

## PH-Nle High-speed analysis method

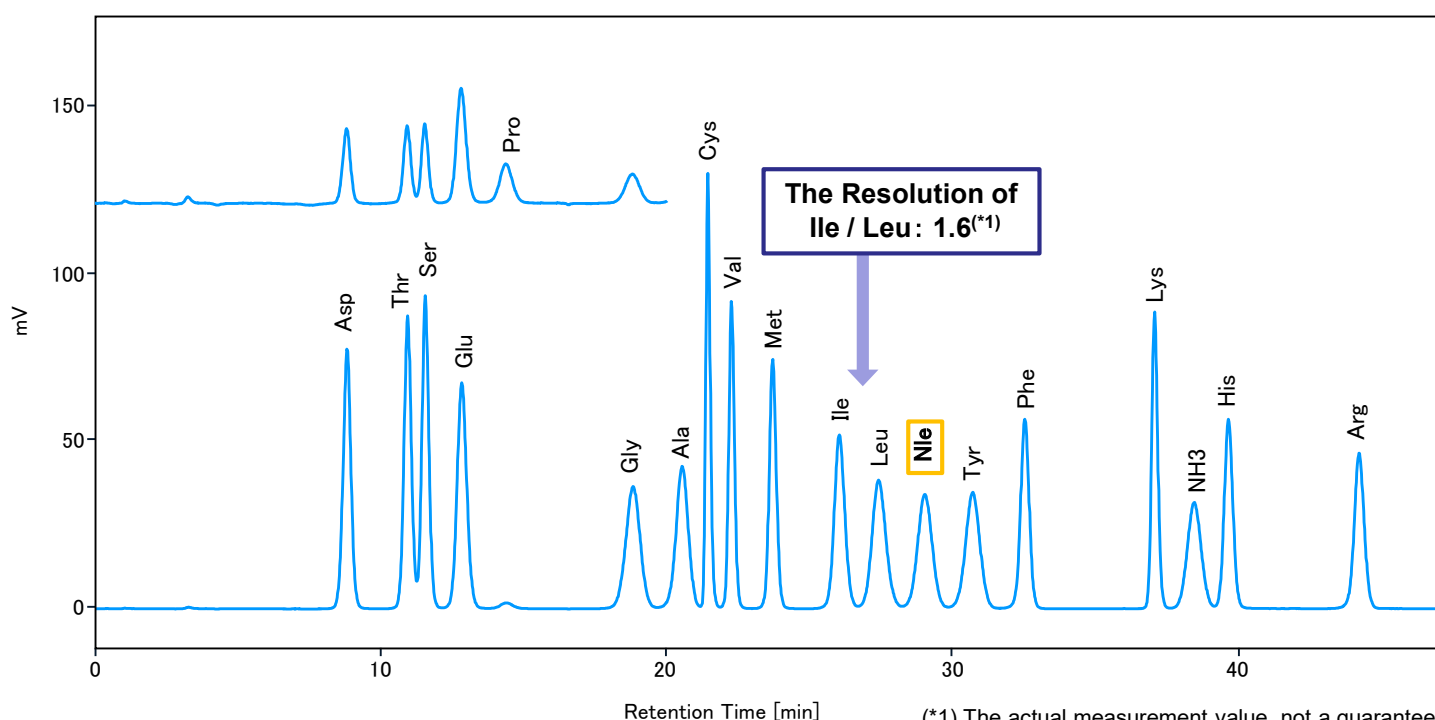
In this report, we will introduce the PH-Nle High-speed analysis method that shortens the analysis time of the PH-Nle High-resolution analysis method (refer to AS/AAA-029). The PH-Nle High-speed analysis method can separate Norleucine (Nle), which is used as an internal standard substance, and analyze the Resolution of Isoleucine (Ile) and Leucine (Leu) is 1.5 or higher in 45 minutes.

Since there are some peaks which the degree of resolution is inferior to that of the PH-Nle High-resolution analysis method, it may not be suitable for precise quantification of samples. However, the analysis method, which performs standard quantification at high-speed, is very useful when the emphasis is on shortening the analysis time.



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

### Analysis of Amino Acid Standard Solution



(\*1) The actual measurement value, not a guaranteed.

Fig.1 Analysis of Amino Acid Standard Solution

Table 1. Analytical Conditions for PH-Nle High-speed method

Column	#2620M 4.6 mm I.D. × 60 mm	Reaction reagent	Ninhydrin Reagent Wako Amino Acid Automated Analyzer Kit (ID code: For Hitachi) (*2)
Ammonia filter column	#2650L 4.6 mm I.D. × 60 mm	Reaction reagent flow rate	0.30 mL/min
Eluent	MCI buffer L-8500 PH-Kit (*2) B1:modified	Reaction temperature	135 °C
Flow rate	0.22 mL/min	Detection wavelength	VIS 440 nm, 570 nm
Column temperature	50~80 °C	Injection volume	20 µL

The standard sample is Amino Acids Mixture Standard Solution, Type H(\*2) with Nle added.

This analysis method is only available on the LA8080.

(\*2) FUJIFILM Wako Pure Chemical Corporation

## List of Amino Acids

Abbrev.	Amino acid	Molecular weight	Std. concentration (nmol/ 20 µL)
Asp	Aspartic acid	133.1	2
Thr	Threonine	119.1	2
Ser	Serine	105.1	2
Glu	Glutamic acid	147.1	2
Pro	Proline	115.1	2
Gly	Glycine	75.1	2
Ala	Alanine	89.1	2
Cys	Cystine	240.3	2
Val	Valine	117.1	2
Met	Methionine	149.2	2
Ile	Isoleucine	131.2	2
Leu	Leucine	131.2	2
Nle	Norleucine	131.2	2
Tyr	Tyrosine	181.2	2
Phe	Phenylalanine	165.2	2
Lys	Lysine	146.2	2
NH3	Ammonia	17.0	2
His	Histidine	155.2	2
Arg	Arginine	174.2	2