

Code No. 165-27361 (2 mL × 4)

for Amino Acid Sequence Analysis
PTH-amino Acids Mixture Standard

[Product Description]

The PTH-amino Acids Mixture Standard is required for peak identification and calibration of amino acid sequence analysis in HPLC. It consists of the PTH derivative of the 20 commonly occurring amino acids.

[Contents]

PTH-DL- α -alanine (206.26)
 PTH-L-arginine HCl (327.83)
 PTH-L-asparagine (249.29)
 PTH-L-aspartic Acid (250.27)
 PTH-L-glutamic Acid (264.30)
 PTH-L-glutamine (263.32)
 PTH-glycine (192.24)
 PTH-L-histidine HCl (308.79)
 PTH-DL-isoleucine (248.34)
 PTH-L-leucine (248.34)
 PTH-L-lysine (398.54)
 PTH-DL-methionine (266.38)
 PTH-L-phenylalanine (282.36)
 PTH-L-proline (232.30)
 PTH-DL-serine (222.26)
 PTH-DL-threonine (236.29)
 PTH- Δ -threonine (218.27)
 PTH-DL-tryptophan (321.40)
 PTH-L-tyrosine (298.36)
 PTH-DL-valine (234.32)

Net weight : 20 nmol $\pm$ 2 nmol of each PTH-amino acids per vial. [() : molecular weight]

Assay (HPLC) : min. 99.0%

[Procedure]

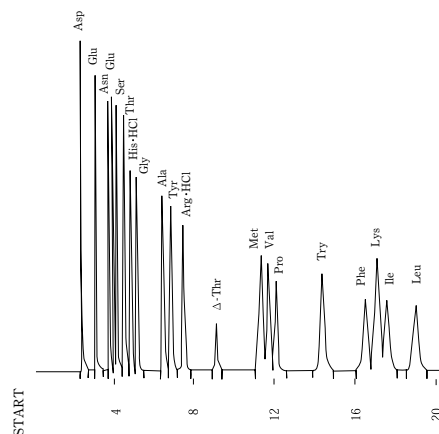
Preparation of the stock solutions (PTH-amino acids of each 10 nmol/mL):

- 1) Add 2.0 mL of reagent (37% Acetonitrile Solution (#018-26041) or PTH-amino Acids Mobile Phase (#168-27351)) to the vial of the PTH-amino Acid Mixture Standard.
- 2) It dissolves completely by stirring.
- 3) Store the stock solution at -20°C after dissolution.
- 4) Appropriate amount is injected into HPLC in order to make a standard HPLC chromatogram. (Fig.1.)
 (For instance: In case of 100 pmol standard, injection is 10 μL)

[Precautions]

- 1) Store condition is at -20°C .
- 2) PTH-amino acids solutions are unstable at room temperature. (Fig.2.)
 After open the package of this products, the remaining vials should store at -20°C in order to prevent absorption of moisture.

Fig.1.
HPLC Chromatogram of PTH-amino Acids Mixture Standard

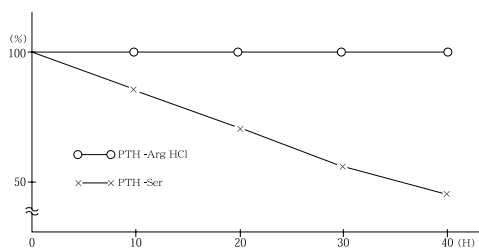
**[HPLC condition]**

LC System : Agilent Technologies 1200LC
 Column : Wakopak[®] Wakosil-PTH-II ϕ 4.6mm $\times$ 250mm
 Eluent : PTH-amino Acids Mobile Phase (#168-27351)
 Sample : PTH-amino Acids Mixture Standard (10 pmol/ μL in PTH-amino Acids Mobile Phase)
 Inject Vol. : 10 μL
 Flow rate : 1 mL/min
 Detection : UV 269 nm
 Temperature : 40°C

Fig.2.

A time course on the concentration of PTH-amino acids solution.

Example : stability data of PTH-arginine HCl, PTH-serine. (at 25 °C)



Sample : PTH-arginine HCl, PTH-serine (each 40 nmol/mL in methanol solution)

Inject Vol. : 20 μ L (800 pmol)

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