

Analytical Data

Code: 4173-v

Compound: [D-Arg¹, D-Trp^{7,9}, Leu¹¹]-Substance P (Hydrochloride Form)
D-Arg-Pro-Lys-Pro-Gln-Gln-D-Trp-Phe-D-Trp-Leu-Leu-NH₂
(M. W. 1497.79) C₇₅ H₁₀₈ N₂₀ O₁₃

Appearance : White amorphous powder

* **Specific Optical Rotation**

$[\alpha]_D^{20}$ -117.3° (c* 0.19, 1M AcOH)

* c value was calculated from the net peptide weight.

* **Elemental Analysis**

Found C, 53.46 ; H, 7.10 ; N, 16.61 %

* **Amino Acid Analysis**

Acid Hydrolysis: 6N HCl, 110°C, 22h.

| | | | |
|--------------|--------------------------|--------------|--------------|
| Glu (2) 2.00 | Pro (2) 1.99 | Leu (2) 2.02 | Phe (1) 0.99 |
| Lys (1) 1.00 | NH ₃ (3) 2.93 | Trp (2) 1.68 | Arg (1) 0.99 |

Thin Layer Chromatography : Single spot

Silica Gel Layer

Application : 50 μg

Solvent System : n-BuOH:AcOH:H₂O:pyridine=15:3:12:10

n-BuOH:AcOH:H₂O=2:1:1

Located by ninhydrin and Ehrlich reagent

Mass Spectral Analysis : Exhibits correct MW

Sample : 4173-v [D-Arg1, D-Trp7,9, Leu11]-Substance P
Sample Size : 0.3 μ L (0.53 mg/ 53 μ L-H₂O)
Column : YMC Pack ODS-A (4.6 mm I.D. \times 150 mm) #0415227715(W) + G (4 \times 10 mm)
Eluent : 0.1M NaCl (pH 2.4)
Gradient : Acetonitrile 20% to 60% [25 min.]
Flow Rate : 1.0 mL/min. , ; Press. : 148 kg/cm² , ; Temp. : 25 $^{\circ}$ C
Detection : CH.1 210 nm

