

CERTIFICATE OF ANALYSIS

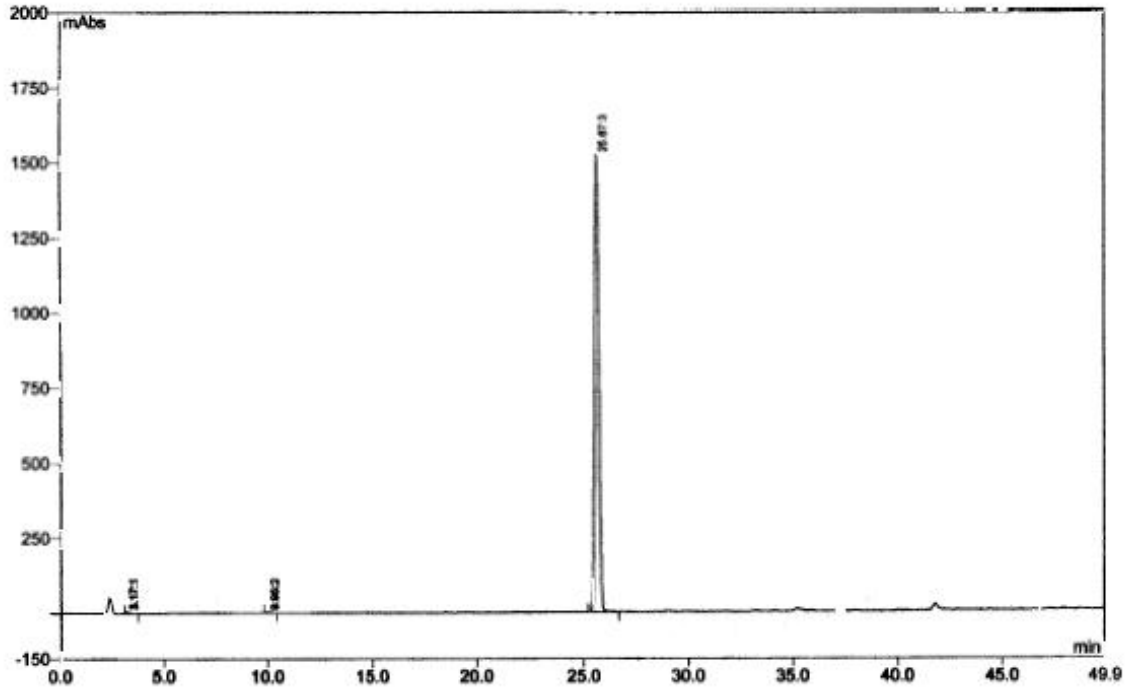
Product Name: Fmoc-L-Gln(Trt)-OH
CAS No.: 132327-80-1
Lot No.: A27160
Molecular Formula: C₃₉H₃₄N₂O₅
Molecular Weight: 610.7
Manufacturing Date: July 10, 2004.
Prolonged Storage: Keep cool and dry at <-18 °C

| Tests | Specifications | Results |
|---|-------------------------------------|----------------|
| Appearance | White to off white powder | White powder |
| Purity(HPLC) | ≥98% | 99.5% |
| Specific Rotation[a] _D ²⁰ | -1.4° ± 1.0° (C=1% in MeOH) | -1.6° |
| Optical Purity | < 0.5 % D-enantiomer | < 0.1 % |
| TLC | Purity ≥98% | >99% |
| Solubility | 1 mmole in 2 ml DMF clearly soluble | Clear solution |

Quality control (seal):

Sample Name: Fmoc-L-Gln(Trt)-OH
Sample Description: 04-12-1090 A27160,
1mg/ml MeOH
Vial Number: 14
Application: Fmoc0111

Analyzed: 04.06.04 13:30
Processed: 04.06.04 14:18
Reported: 04.06.04 14:18



Acquisition Method: Fmoc
 Processing Method: Fmoc
 Column Type: MNNucleosil C18HD 125×3mm 100-3
 Solvent A: TEAP 0.05 M pH 2.25
 Solvent B: Eluent A + ACN(10/90)
 Gradient: 35-95% B in 35 min
 Flow: 0.8ml/min
 Detection: UV 215nm
 Temp: 30 °C
 Volume: 5,0ul

| No. | Ret.Time min | Type | Area % | Height MAbs mim |
|-----|-----------------|------|--------|--------------------|
| 1 | 3.17 | MLR | 0.26 | 0.88 |
| 2 | 9.95 | MLR | 0.26 | 0.26 |
| 3 | 25.67 | MLR | 99.49 | 341.69 |
| | | | 100,00 | 343.45 |

Peak rejection level:10000