

CERTIFICATE OF ANALYSIS

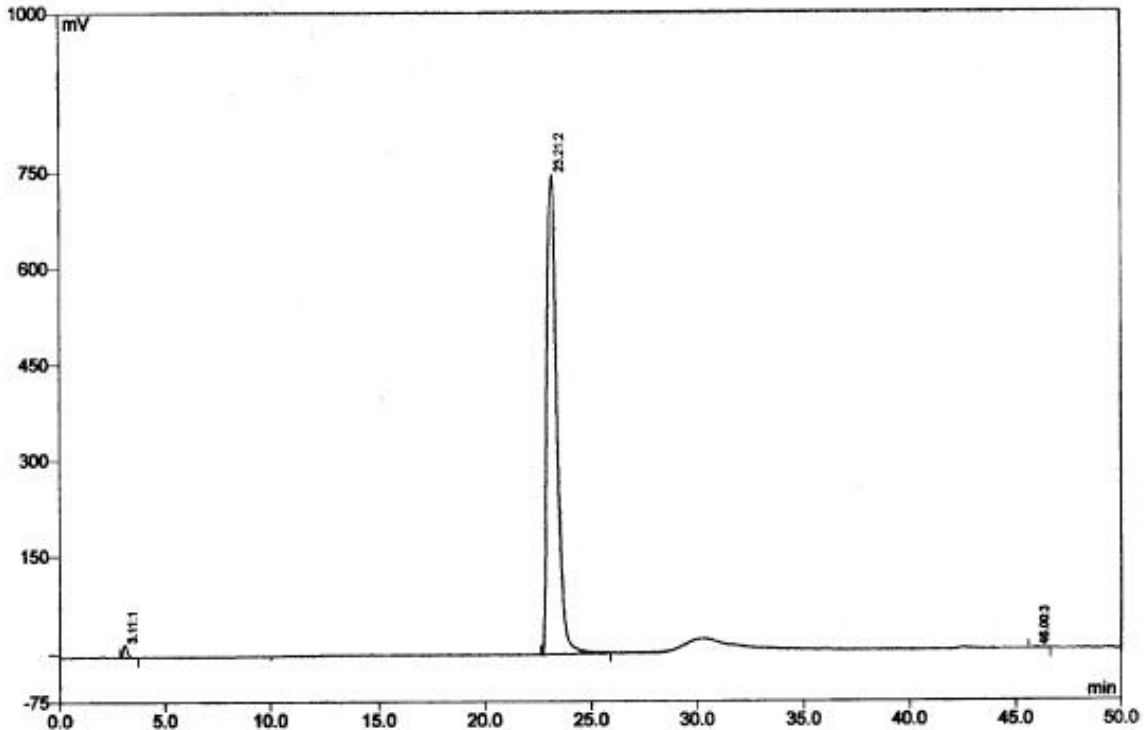
Product Name: Fmoc-L-His(Trt)-OH
CAS No.: 109425-51-6
Lot No.: A27468
Molecular Formula: $C_{40}H_{33}N_3O_4$
Molecular Weight: 619.7
Manufacturing Date: July 10, 2004.
Prolonged Storage: Keep cool and dry at $<-18\text{ }^{\circ}\text{C}$

Tests	Specifications	Results
Appearance	White to off white powder	White powder
Purity(HPLC)	$\geq 98.0\%$	99.5%
Specific Rotation $[\alpha]_D^{20}$	$92.0^{\circ} \pm 8.0^{\circ}$ (C=5% in $CHCl_3$)	93.2°
Optical Purity	$< 0.5\%$ D-enantiomer	$< 0.1\%$
TLC	Purity $\geq 98\%$	$> 98.7\%$
Solubility	1 mmole in 2 ml DMF clearly soluble	Clear solution

Quality control (seal):

Sample Name: Fmoc-L-His(Trt)-OH
Sample Description: 04-12-1065 A27468,
Vial Number: 37
Application: Fmoc0201

Analyzed: 07.01.04 11:30
Processed: 07.01.04 17:18
Reported: 07.01.04 17:18



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 mV
1	3.11	MLR	1.11	19.10
2	23.21	MLR	98.73	746.67
3	46.00	MLR	0.17	1.54
			100.00	767.31

Peak rejection level:10000