



# INDOFINE Chemical Company, Inc.

121 Stryker Lane, Bldg. 30, Suite 1 • Hillsborough, NJ 08844 • U.S.A.

Phone: (908) 359-6778 • FAX: (908) 359-1179

website: [www.indofinechemical.com](http://www.indofinechemical.com)

e-mail: [chemical@indofinechemical.com](mailto:chemical@indofinechemical.com)

## *Certificate of Analysis*

Catalogue Number 04-1277  
Lot Number 000424-130710-35201  
Product **Fmoc-L-glutamine**

Fmoc-L-glutamine

CAS Number 71989-20-3  
Molecular Formula  $C_{20}H_{20}N_2O_5$   
Molecular Weight 368.4

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Appearance	White powder
Solubility	Clear solution (0.1 g in 20 mL DMF)
Melting Point	213.3-213.4 °C
Optical Rotation	$[\alpha]_D^{20} = -17.8^\circ$ (C=1% in DMF)
Infrared Spectrum	Conforms to structure
Analysis by Mass Spectra	Conforms to standard
Loss on Drying	0.33% (100 °C, 2 hr)
<sup>1</sup> H NMR	Conforms to structure
D-Enantiomer	Not detectable
Purity by HPLC	98.74%
Purity by TLC	> 98%
Chiral Purity	100%
Storage	Store at 0-8 °C