

# Chem-Impex International, Inc.

---

**Tel:** (630) 766-2112

**E-mail:** sales@chemimpex.com

**Shipping and Correspondence:**

935 Dillon Drive

Wood Dale, IL 60191

**Fax:** (630) 766-2218

**Web site:** www.chemimpex.com

**Manufacturing site:**

825 Dillon Drive

Wood Dale, IL 60191

---

## Certificate of Analysis

<b>Catalogue Number</b>	04114
<b>Lot Number</b>	000424-211202-23711
<b>Product</b>	<b>Fmoc-4-cyano-L-phenylalanine</b> Fmoc-L-Phe(4-CN)-OH
<b>CAS Number</b>	173963-93-4
<b>Molecular Formula</b>	C <sub>25</sub> H <sub>20</sub> N <sub>2</sub> O <sub>4</sub>
<b>Molecular Weight</b>	412.4

---

<b>Appearance</b>	White powder
<b>Solubility</b>	Clear solution (0.3 g in 2 mL DMF)
<b>Melting Point</b>	188.1 - 189.2 °C
<b>Water Content (Karl Fisher)</b>	0.15%
<b>Optical Rotation</b>	[α] <sub>D</sub> <sup>20</sup> = -37.1 ° (C=1 in DMF)
<b>Infrared Spectrum</b>	Conforms to structure
<b>Analysis by Mass Spectra</b>	Conforms to standard
<b>Loss on Drying</b>	0.24% (105 °C, 2h)
<b><sup>1</sup>H NMR</b>	Conforms to structure
<b>Chiral HPLC</b>	99.98% (ee)
<b>D-Enantiomer</b>	0.0113%
<b>Purity by HPLC</b>	99.7%
<b>Storage</b>	Store at 0 - 8 °C
<b>Remarks</b>	See material safety data sheet for additional information For laboratory use only

The foregoing is a copy of the Certificate of Analysis as provided by our supplier



**Bala Kumar**  
**Quality Control Manager**