

# Chem-Impex International, Inc.

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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

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## Certificate of Analysis

<b>Catalogue Number</b>	03727
<b>Lot Number</b>	000424-211201-22377
<b>Product</b>	<b>Fmoc-D-norvaline</b> Fmoc-D-Nva-OH
<b>CAS Number</b>	144701-24-6
<b>Molecular Formula</b>	C <sub>20</sub> H <sub>21</sub> NO <sub>4</sub>
<b>Molecular Weight</b>	339.4

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<b>Appearance</b>	White powder
<b>Solubility</b>	Clear solution (0.3 g in 2 mL DMF)
<b>Melting Point</b>	150.8 - 153.1 °C
<b>Water Content (Karl Fisher)</b>	0.55%
<b>Optical Rotation</b>	[α] <sub>D</sub> <sup>20</sup> = 20.1 ° (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>	0.23% (50 °C, 2h)
<b><sup>1</sup>H NMR</b>	Conforms to structure
<b>Purity by HPLC</b>	99.95%
<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