

# 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

**Catalogue Number** 02901  
**Lot Number** 000424-140821-22373  
**Product** **Fmoc-L-norvaline**

Fmoc-L-Nva-OH

Fmoc-L-2-aminovaleric acid

**CAS Number** 135112-28-6

**Molecular Formula** C<sub>20</sub>H<sub>21</sub>NO<sub>4</sub>

**Molecular Weight** 339.4

---

**Appearance** White powder  
**Solubility** Clear solution (0.3g in 2 mL DMF)  
**Melting Point** 154.1-154.2 °C  
**Water Content (Karl Fisher)** 0.13%  
**Optical Rotation** [α]<sub>D</sub><sup>20</sup> = -19.1° (C=1 in DMF)  
**Infrared Spectrum** Conforms to structure  
**Analysis by Mass Spectra** Conforms to standard  
**Loss on Drying** 0.72% (75 °C, 2h)  
**<sup>1</sup>H NMR** Conforms to structure  
**Purity by HPLC** 99.71%  
**Storage** Store at 0-8 °C

# *Certificate of Analysis*

Catalog Number: 02901

Lot Number: 000424-140821-22373

---

**Remarks**

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**