

# Chem-Impex International, Inc.

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## Certificate of Analysis

|                   |                                                            |
|-------------------|------------------------------------------------------------|
| Catalogue Number  | 02575                                                      |
| Lot Number        | 000424-201110-21124                                        |
| Product           | <b>Fmoc-4-fluoro-L-phenylalanine</b><br>Fmoc-L-Phe(4-F)-OH |
| CAS Number        | 169243-86-1                                                |
| Molecular Formula | C <sub>24</sub> H <sub>20</sub> FNO <sub>4</sub>           |
| Molecular Weight  | 405.4                                                      |

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|                             |                                                                                      |
|-----------------------------|--------------------------------------------------------------------------------------|
| Appearance                  | White powder                                                                         |
| Solubility                  | Clear solution (0.3 g in 2 mL DMF)                                                   |
| Melting Point               | 183.9 - 189.5 °C                                                                     |
| Water Content (Karl Fisher) | 1.21%                                                                                |
| Optical Rotation            | [α] <sub>D</sub> <sup>20</sup> = -38.4 ° (C=1 in DMF)                                |
| Infrared Spectrum           | Conforms to structure                                                                |
| Analysis by Mass Spectra    | Conforms to standard                                                                 |
| Loss on Drying              | 1.14% (70 °C, 2h)                                                                    |
| <sup>1</sup> H NMR          | Conforms to structure                                                                |
| Purity by HPLC              | 99.82%                                                                               |
| Storage                     | Store at 0 - 8 °C                                                                    |
| Remarks                     | See material safety data sheet for additional information<br>For laboratory use only |

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



Bala Kumar  
Quality Control Manager