

# Chem-Impex International, Inc.

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## Certificate of Analysis

<b>Catalogue Number</b>	33080
<b>Lot Number</b>	000424-190518-23706
<b>Product</b>	<b>Fmoc-Aph(Cbm)-OH</b> 4-(Aminocarbonyl)amino-N-Fmoc-L-Phenylalanine
<b>CAS Number</b>	324017-23-4
<b>Molecular Formula</b>	C <sub>25</sub> H <sub>23</sub> N <sub>3</sub> O <sub>5</sub>
<b>Molecular Weight</b>	445.4

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<b>Appearance</b>	Off-white powder
<b>Solubility</b>	Clear solution (0.3 g in 2 mL DMF)
<b>Melting Point</b>	200.4 - 201.3 °C
<b>Optical Rotation</b>	[α] <sup>20</sup> <sub>D</sub> = -6.7 ° (C = 1 in DMF)
<b>Infrared Spectrum</b>	Conforms to structure
<b>Analysis by Mass Spectra</b>	Conforms to standard
<b><sup>1</sup>H NMR</b>	Conforms to structure
<b>Chiral HPLC</b>	99.98% (ee)
<b>D-Enantiomer</b>	0.0133%
<b>Purity by HPLC</b>	98.65%
<b>Storage</b>	Store at 0 - 8 °C
<b>Additional Information</b>	Tetrahydrofuran (By NMR) : 7%
<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