

# 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>	05686
<b>Product</b>	<b><i>N</i><sup>α</sup>-Fmoc-<i>N</i><sup>ω</sup>.<i>N</i><sup>ω'</sup>-bis-Boc-D-arginine</b>
<b>Lot Number</b>	000424-211008-36433 Fmoc-D-Arg(Boc) <sub>2</sub> -OH
<b>CAS Number</b>	214852-34-3
<b>Molecular Formula</b>	C <sub>31</sub> H <sub>40</sub> N <sub>4</sub> O <sub>8</sub>
<b>Molecular Weight</b>	596.7

---

<b>Appearance</b>	White to off-white powder
<b>Solubility</b>	Clear solution (0.3 g in 2 mL DMF)
<b>Melting Point</b>	86.2 - 138.1 °C
<b>Water Content (Karl Fisher)</b>	0.76%
<b>Optical Rotation</b>	[α] <sub>D</sub> <sup>20</sup> = 3.2 ° (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>	1.54% (45 °C, 2h)
<b><sup>1</sup>H NMR</b>	Conforms to structure
<b>Chiral HPLC</b>	99.78% (ee)
<b>L-Enantiomer</b>	0.214%
<b>Purity by HPLC</b>	95.83%
<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