

# *Chem-Impex International, Inc.*

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825 Dillon Drive

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## *Certificate of Analysis*

<b>Catalogue Number</b>	02602
<b>Lot Number</b>	000424-200318-22258
<b>Product</b>	<b>Fmoc-(3R)-1,2,3,4-tetrahydroisoquinoline-3-</b> Fmoc-D-Tic-OH
<b>CAS Number</b>	130309-33-0
<b>Molecular Formula</b>	C <sub>25</sub> H <sub>21</sub> NO <sub>4</sub>
<b>Molecular Weight</b>	399.4

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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>	160.7 - 161.2 °C
<b>Elemental Analysis (Found)</b>	< 5% (C, H, N)
<b>Water Content (Karl Fisher)</b>	0.74%
<b>Optical Rotation</b>	[α] <sub>D</sub> <sup>20</sup> = -27 ° (C=1 in MeOH)
<b>Infrared Spectrum</b>	Conforms to structure
<b>Analysis by Mass Spectra</b>	Conforms to standard
<b>Loss on Drying</b>	1.40% (70 °C, 2h)
<b><sup>1</sup>H NMR</b>	Conforms to structure
<b>Chiral HPLC</b>	99.51% (ee)
<b>L-Enantiomer</b>	0.4852%
<b>Purity by HPLC</b>	99.85%
<b>Purity by TLC</b>	> 98%
<b>Storage</b>	Store at 0 - 8 °C

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**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**

A handwritten signature in black ink, appearing to read 'Bala Kumar', with a stylized flourish at the end.

**Bala Kumar**  
**Quality Control Manager**