

# *Chem-Impex International, Inc.*

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825 Dillon Drive

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## *Certificate of Analysis*

**Catalogue Number** 02372  
**Product** **Fmoc-D-alanine**

**Lot Number** 000424-160815-35002  
Fmoc-D-Ala-OH

**CAS Number** 79990-15-1  
**Molecular Formula** C<sub>18</sub>H<sub>17</sub>NO<sub>4</sub>

**Molecular Weight** 311.3

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**Appearance** White powder  
**Solubility** Clear solution (0.3 g in 2 mL DMF)  
**Melting Point** 152.6-153.4 °C  
**Water Content (Karl Fisher)** 2.879%  
**Optical Rotation** [α]<sub>D</sub><sup>20</sup> = +18.2° (C=1 in DMF)  
**Infrared Spectrum** Conforms to structure  
**Analysis by Mass Spectra** Conforms to standard  
**Loss on Drying** 0.38% (60 °C, 2 hr)  
**<sup>1</sup>H NMR** Conforms to structure  
**L-Enantiomer** Not detectable  
**Purity by HPLC** 99.52%  
**Purity by TLC** > 98%  
**Chiral Purity** 100% (ee)  
**Storage** 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**



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