

## Analytical Data Sheet

Lot number **1053604**  
not for drug use

Catalog number **C-1285.0025**  
Product number **4000164.0025**  
Product **Z- Arg- OH**  
Molecular formula **C<sub>14</sub>H<sub>20</sub>N<sub>4</sub>O<sub>4</sub>**  
Relative molecular mass **308.34**

Tests	Results
Appearance	white powder
Appearance of solution	clear, colorless solution (50 mg/mL in 80% acetic acid)
Identification (elemental analysis)	<p>Theory Found</p> <p>C = 53.9% C = 53.8%</p> <p>H = 6.6% H = 6.7%</p> <p>N = 18.0% N = 17.9%</p> <p>calc. x 0.2 H<sub>2</sub>O (1.17%)</p>
Identification (TLC)	complies with authentic material
Melting point	175.7 °C
Specific optical rotation	[α] <sub>D</sub> <sup>24</sup> -9.8° (0.5% in 0.5M HCl)
Purity (HPLC)	99.1% (TFA)
Purity (TLC)	> 99%
Related impurities (TLC)	< 0.1% H-Arg-OH < 0.1% Z-Arg-Arg-OH
TLC conditions	n-butanol/acetic acid/H <sub>2</sub> O 4/2/2 chloroform/methanol/acetic acid 32% 5/3/1 ethylacetate/pyridine/acetic acid/H <sub>2</sub> O 6/5/1/3 plate: silicagel 60 F <sub>254</sub> detected by: UV, ninhydrin, TMB
Other amino acids (GC)	< 0.3%
Enantiomer content (chiral chromatography)	< 0.1% D-enantiomer
Assay (elemental analysis)	98.7% (Nth 18.17%, Nfd 17.94%)
Water content (KF volumetric)	1.1%

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Latest update: May 19, 2014

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