

Analytical Data Sheet

Lot number **1000014852**
not for drug use

Retest date September 2019
Catalog number **C-1000.0100**
Product number **4000246.0100**
Product **Z- Ala- OH**
Molecular formula $C_{11}H_{13}NO_4$
Relative molecular mass 223.23

Tests	Results								
Appearance	white powder								
Appearance of solution	clear, colorless solution (50 mg/mL in methanol)								
Identification (elemental analysis)	<table> <thead> <tr> <th>Theory</th> <th>Found</th> </tr> </thead> <tbody> <tr> <td>C = 59.2%</td> <td>C = 58.9%</td> </tr> <tr> <td>H = 5.9%</td> <td>H = 5.7%</td> </tr> <tr> <td>N = 6.3%</td> <td>N = 6.2%</td> </tr> </tbody> </table>	Theory	Found	C = 59.2%	C = 58.9%	H = 5.9%	H = 5.7%	N = 6.3%	N = 6.2%
Theory	Found								
C = 59.2%	C = 58.9%								
H = 5.9%	H = 5.7%								
N = 6.3%	N = 6.2%								
Identification (TLC)	complies with authentic material								
Melting point	87 °C								
Specific optical rotation	$[\alpha]_D^{24} = -14.7^\circ$ (2% in acetic acid)								
Purity (HPLC)	99.4% (TFA)								
Related impurities (HPLC)	not det. Z-β-Ala-OH								
Purity (TLC)	> 99.5%								
Related impurities (TLC)	< 0.1% Z-Ala-Ala-OH < 0.1% H-Ala-OH								
TLC conditions	toluene/dioxane/acetic acid 95/25/4 chloroform/methanol/toluene/H ₂ O 8/8/8/1 chloroform/methanol/acetic acid 85/10/5 plate: silicagel 60 F ₂₅₄ detected by: UV, ninhydrin, TMB								
Other amino acids (GC)	< 0.3%								
Enantiomer content (chiral chromatography)	0.2% D-enantiomer								
Assay (titration)	100.2% (TBAH)								