

Analytical Data Sheet

Lot number

1048866

not for drug use

Catalog Number	C-1620.0005
Product number	4007071.0005
Product	Z- D- Gln- OH
Molecular formula	C ₁₃ H ₁₆ N ₂ O ₅
Relative molecular mass	280.28

Tests	Results								
Appearance	white powder								
Appearance of solution	clear, colorless solution (50 mg/mL in methanol)								
Identification (elemental analysis)	<table border="0"> <tr> <td>Theory</td> <td>Found</td> </tr> <tr> <td>C = 55.7%</td> <td>C = 55.4%</td> </tr> <tr> <td>H = 5.8%</td> <td>H = 5.8%</td> </tr> <tr> <td>N = 10.0%</td> <td>N = 9.9%</td> </tr> </table>	Theory	Found	C = 55.7%	C = 55.4%	H = 5.8%	H = 5.8%	N = 10.0%	N = 9.9%
Theory	Found								
C = 55.7%	C = 55.4%								
H = 5.8%	H = 5.8%								
N = 10.0%	N = 9.9%								
Identification (TLC)	complies with authentic material								
Melting point	137 °C								
Specific optical rotation	$[\alpha]_D^{24} = +5.4^\circ$ (2% in ethanol)								
Purity (TLC)	> 99%								
Related impurities (TLC)	<ul style="list-style-type: none"> < 0.2% Z-D-Gln-D-Gln-OH ≤ 0.2% Z-D-Glu-OH < < 0.1% H-D-Gln-OH 								
TLC conditions	chloroform/methanol/toluene/H ₂ O 8/8/8/1 chloroform/methanol/acetic acid/H ₂ O 45/13/1/2 ethylacetate/pyridine/acetic acid/H ₂ O 60/20/6/11 plate: silicagel 60 F ₂₅₄ detected by: UV, ninhydrin, TMB								
Enantiomer content (GC)	< 0.1% L-Enantiomer								
Other amino acids (GC)	< 0.2%								
Assay (elemental analysis)	99.2% (Nth 9.99%, Nfd 9.91%)								
Water content (KF volumetric)	0.3%								
Residual organic solvents (GC)	none detected								
Latest update: July 01, 2013									