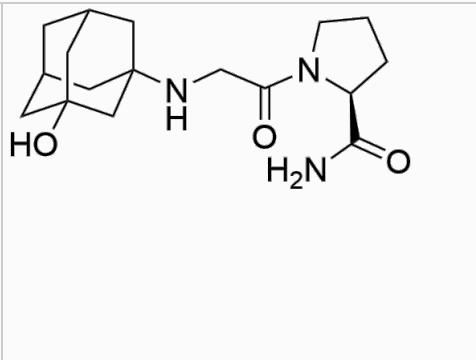




CERTIFICATE OF ANALYSIS

20 Martin Ross Avenue, North York, ON, M3J 2K8, CANADA
Tel: (416) 665-9696, Fax: (416) 665-4439
Email:orders.trc@lgcgroup.com Website: www.trc-canada.com

1. Identification

Catalogue Number:	H971380	CAS Number:	565453-39-6
Product:	N-(3-Hydroxytricyclo[3.3.1.13,7]dec-1-yl)glycyl-L-prolinamide	Synonym:	Vildagliptin Impurity A
Structure:		Molecular Formula:	$C_{17}H_{27}N_3O_3$
		Molecular weight:	321.41
		Source of Product:	Synthetic
		Solubility:	Chloroform (Slightly), DMSO (Slightly), Methanol (Slightly)
Lot Number:	7-MP-115-6	Purity:	95%
Shipping Condition:	This Product Is Stable To Be Shipped At Room Temperature	Storage Condition:	4°C

2. Warning

Warning 1: **Warning 2:** **Warning 3:**

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	White to Off-White Solid	White Solid
NMR	Conforms to Structure	Conforms
MS	Conforms to Structure	Conforms
HPLC Purity	Report Result	97.50% (ELSD)
Elemental Analysis	Conforms	%C: 58.52, %H: 8.27, %N: 11.53

Additional Information: N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of $\pm 2\%$. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed By	Reviewed By	C of A Approved By	Test Date	Retest Date
Evan Burns	Toni Rantanen	Chanell Chu	9/20/2022	9/18/2026
Evan Burns				