



DALIAN HANDOM CHEMICALS CO.,LTD.

Add.: RM702, Unit 1, Building 21, Liuhe Road, Ganjingzi Dist, Dalian, Liaoning, China
E-mail: info@handomchemicals.com Web.: www.handomchemicals.com

Certificate of Analysis

Product Name: (S)-22-(tert-butoxycarbonyl)-43,43-dimethyl-10,19,24,41-tetraoxo-3,6,12,15,42-pentaoxa-9,18,23-triazatetracontanoic acid

Abbreviation: tBuO-Ste-Glu(AEEA-AEEA-OH)-OtBu

CAS No.: 1118767-16-0

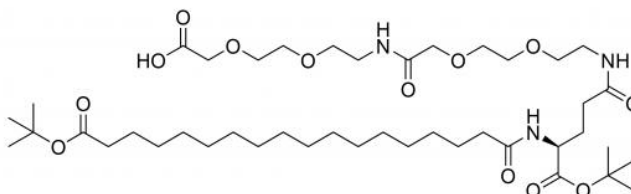
Batch No.: HDC20231201

Manufacturing Date: Dec 1st, 2023

Quantity: 86.50g

Retest Date: Nov 30th, 2026

Chemical Structural Formula:



Recommended Storage Conditions:

Short-term storage at room temperature; more than three months is best stored at 2-8 degrees Celsius; more than one year is best stored at -20±5 degrees Celsius.

For reducing the absorption of the moisture, it should be slowly warmed to ambient temperature before opened.

Test Items	Specifications	Test Results	Test Methods
Appearance	Off-white or yellowish paste solid	Yellowish paste solid	Visual
Identification	Meets the requirements	Conforms	¹ H-NMR
Purity	Not less than 95.0%	99.3%	HPLC
e.e. %	Not less than 98.0%	100.0%	HPLC
Related Substances			
tBuO-Iso-Glu(AEEA-AEEA-OH)-OtBu (ZZ-28)	Not more than 0.50%	<0.05%	HPLC
tBuO-Pal-Glu(AEEA-AEEA-OH)-OtBu (ZZ-23)	Not more than 0.50%	<0.05%	HPLC
tBuO-Mar-Glu(AEEA-AEEA-OH)-OtBu (ZZ-18)	Not more than 0.50%	<0.05%	HPLC
tBuO-Non-Glu(AEEA-AEEA-OH)-OtBu (ZZ-	Not more than 0.50%		



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13) tBuO-Ara-Glu(AEEA-AEEA-OH)-OtBu (ZZ-46)	Not more than 0.50%	<0.05% Not detected	HPLC HPLC
tBuO-Ste-Glu(OSu)-OtBu (ZZ-6)	Not more than 0.50%	Not detected	HPLC
tBuO-Ste-Glu(AEEA-OH)-OtBu (ZZ-42)	Not more than 0.50%	Not detected	HPLC
tBuO-Ste-Glu(AEEA-AEEA-OMe)-OtBu (ZZ-61)	Not more than 1.00%	0.08%	HPLC
Sum	Not more than 5.0%	0.7%	HPLC
Moisture	Not more than 1.00%	0.72%	KF
Volatile Organics			
Dichloromethane	Not more than 10000 ppm	3320 ppm	GC
Methyl alcohol	Not more than 5000 ppm	Not detected	GC
N-heptane	Not more than 5000 ppm	Not detected	GC
Isopropyl alcohol	Not more than 5000 ppm	389 ppm	GC
n-Hexane	Not more than 290 ppm	Not detected	GC
Endotoxins	Not more than 2.0 EU/mg	<2.0 EU/mg	ChP<1143>
Conclusion	The testing results of this batch of product are complied with the Enterprise Standard.		

***Warnings:** HANDOM CHEM declares that its products comply with the information contained in this and other HANDOM's publications. Purchasers must determine the suitability of the products for their specific applications. The values indicated in the "Certificate of Analysis" are the results determined at the time of analysis.