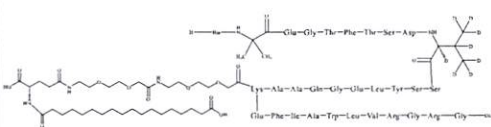


## Certificate of Analysis



Certificate No.: **20230614011**

Date: June 14, 2023

Retest date: June 1, 2026

<b>Compound Name:</b>	<b>Semaglutide-d<sub>8</sub></b>	
<b>Synonyms:</b>	L-histidyl-2-methylalanyl-L- $\alpha$ -glutamylglycyl-L-threonyl-L-phenylalanyl-L-threonyl-L-seryl-L- $\alpha$ -aspartyl-L-valyl-d <sub>8</sub> -L-seryl-L-seryl-L-tyrosyl-L-leucyl-L- $\alpha$ -glutamylglycyl-L-glutamyl-L-alanyl-L-alanyl-N <sup>6</sup> -[N-(17-carboxy-1-oxoheptadecyl)-L- $\gamma$ -glutamyl-2-[2-(2-aminoethoxy)ethoxy]acetyl-2-[2-(2-aminoethoxy)ethoxy]acetyl]-L-lysyl-L- $\alpha$ -glutamyl-L-phenylalanyl-L-isoleucyl-L-alanyl-L-tryptophyl-L-leucyl-L-valyl-L-arginylglycyl-L-arginyl-Glycine	
<b>TLC Catalogue Number:</b>	PS-189038	
<b>CAS Number:</b>	910463-68-2 (non-labelled)	
<b>Molecular Weight:</b>	4121.69	
<b>Molecular Formula:</b>	C <sub>187</sub> H <sub>283</sub> D <sub>8</sub> N <sub>45</sub> O <sub>59</sub>	
<b>Source:</b>	TLC Pharmaceutical Standards	
<b>Source Lot No.:</b>	5646-034A12	
<b>Storage Conditions:</b>	Store at 2-8 °C	
<b>Solubility:</b>	Solution of Water and Acetonitrile, DMSO	

Test Description	Specifications	Results
<b>Visual Description</b>	White to off-white solid	<b>Conforms</b>
<b>Identification</b>		
IR	Conforms to structure	<b>Conforms</b>
MS	Conforms to structure	<b>Conforms</b>
<sup>1</sup> H NMR	Conforms to structure	<b>Conforms</b>
<b>Elemental Analysis</b>	Conforms to structure	<b>Conforms</b>
<b>Purity (HPLC)</b>	Not less than 90.0%	<b>95.1%</b>
<b>Impurity (HPLC)</b>	RT 8.66, 1.22%; RT 9.22, 0.67%; RT 12.80, 1.58%	
<b>Isotopic Enrichment</b>	Not less than 98.0%	<b>99.5%</b>
<b>Water Content (KF)</b>	N/A	<b>6.4%</b>
<b>Residual Solvents (NMR)</b>	No residual solvent	
<b>Assay (%)</b>	Not less than 85.0%	<b>89.0%</b>
<b>Recommendation:</b>	<b>Release.</b>	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		06/15/2023
Approved by:	Quality Assurance		06/15/2023

**Attachments:** HPLC, IR, MS and NMR spectra.