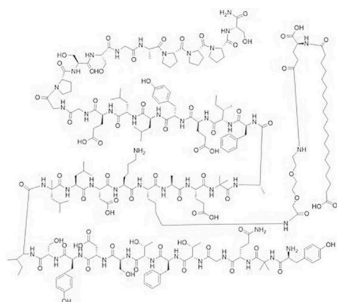
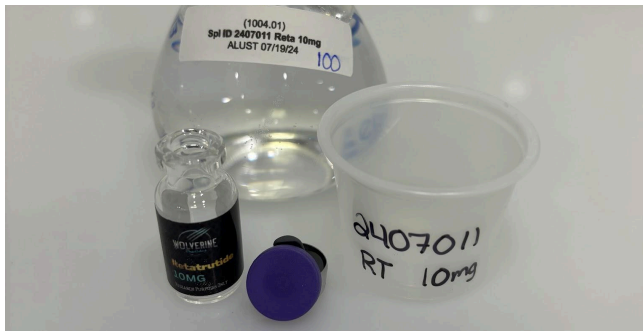




Certificate of Analysis



Compound:	Retatrutide	Analysis Date:	19-Jul-2024
CAS:	2381089-83-2	Client:	Wolverine Peptides
Manufacturer:	Wolverine Peptides		
Client Sample ID:	Purple Cap		
Lot:	RT 10mg 1 vial	Test Reference:	2407011
Sample Image:			

Sample Testing	Test Method	Acceptance Criteria	Result
Appearance	Visual	White to off-white powder	Pass
Identification by Retention Time	TM-1004	0.98 - 1.02	1.00
Identification by UV Spectral Comparison to Reference Standard	TM-1004	≥ 950	999
Vial Content (mg)	TM-1004	Per customer specification	12.39mg
Purity	TM-1004	Per customer specification	99.915%

- **Appearance:** This check is to visually verify that the sample matches the expected sample properties. If the sample appearance was different than listed, TrustPointe would reach out to the customer to verify that the correct samples were received.
- The Following Tests Are Performed Using HPLC (High Performance Liquid Chromatography):
 - **Identification by Retention Time:** This is an identification test in which the retention time of the sample is compared to the average retention time of five reference standard injections.
 - **Identification by UV Spectral Comparison to Reference Standard:** This is an identification test in which the UV spectrum of the sample is compared to the UV spectrum of the standard.
 - **Vial Content (mg):** This is the amount of the compound in the vial we tested determined by HPLC analysis.
 - **Purity:** This is purity of the sample, calculated including peaks around the compound that may be

impurities.

Method & System Suitability	Test Method	Acceptance Criteria	Result
Standard + SSC Injection RSD	TM-1004	Standard Bracket Area RSD \leq 2.0%	0.6%
Coelution Control (Peak Purity)	TM-1004	> 950	997

- **Standard + SSC Injection RSD:** This value shows that the HPLC system was running properly throughout your testing. The %RSD of the standard injections performed before your sample and the standard injection performed after your sample is calculated to ensure there were no system errors during your run. Although system errors such as leaks, a line running dry, air bubbles, etc. are rare, it's important that we demonstrate no errors occurred during analysis.
- **Coelution Control (Peak Purity):** This value demonstrates that there is no co-elution occurring during analysis. We receive samples from a multitude of manufacturers and each has their own recipe (stabilizers, solubilizers, fillers, etc) in their process. This measurement ensures that none of these other components interfere with the analysis. In short, this number confirms that the method is working properly and only analyzing the target compound.

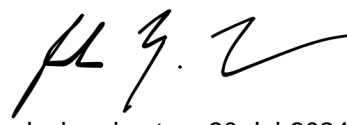
All testing services provided by TrustPointe Analytics LLC are subject to our [Terms of Service](#). Learn [How To Read a COA](#).

Created By:



Ashlee Lust 20-Jul-2024

Reviewed By:



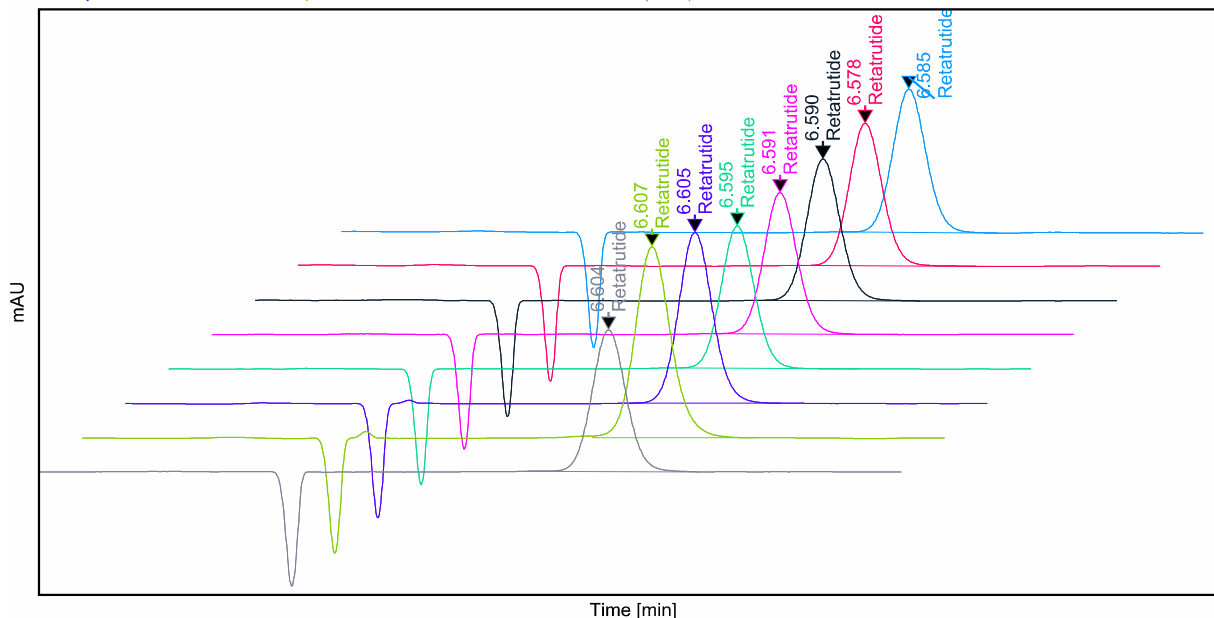
Joshua Lust 20-Jul-2024

Sample Potency and ID Report

Sequence Name 1004_aml_071924

Sequence Acquired Date 2024-07-19 11:17:03-04:00

Retatrutide Std - 1 Sample ID 2407011 Retatrutide Std - 2 Sample ID 2407021 Retatrutide Std - 3 Retatrutide Std - 6 (SSC) Retatrutide Std - 4 Retatrutide Std - 5



Sample Name	Name	RT	Area	Multiplier	Amount	Unit	UV Match Factor	Peak Purity	Peak Tail Factor
Retatrutide Std - 1	Retatrutide	6.585	607.817	1;1;1;1;1	10.24	%	1000	974	1.1
Retatrutide Std - 2	Retatrutide	6.578	606.087	1;1;1;1;1	10.20	%	1000	995	1.1
Retatrutide Std - 3	Retatrutide	6.590	606.190	1;1;1;1;1	10.21	%	1000	993	1.1
Retatrutide Std - 4	Retatrutide	6.591	602.053	1;1;1;1;1	10.14	%	999	947	1.1
Retatrutide Std - 5	Retatrutide	6.595	601.457	1;1;1;1;1	10.13	%	998	991	1.1
Sample ID 2407011	Retatrutide	6.605	735.766	10;1;1;1;1	123.87	%	999	997	1.1
Sample ID 2407021	Retatrutide	6.607	867.802	6.66667;1;1;1;1	97.40	%	998	991	1.1
Retatrutide Std - 6 (SSC)	Retatrutide	6.604	611.167	1;1;1;1;1	10.29	%	999	858	1.1

Sample Potency and ID Report

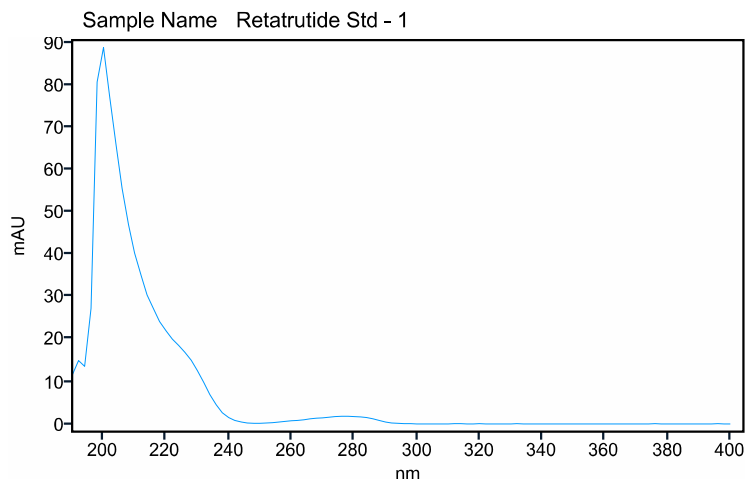
UV Match Spectra

RT:

6.585

Compound Name:

Retatrutide



Compound Spectra Confirm Result Confirmed

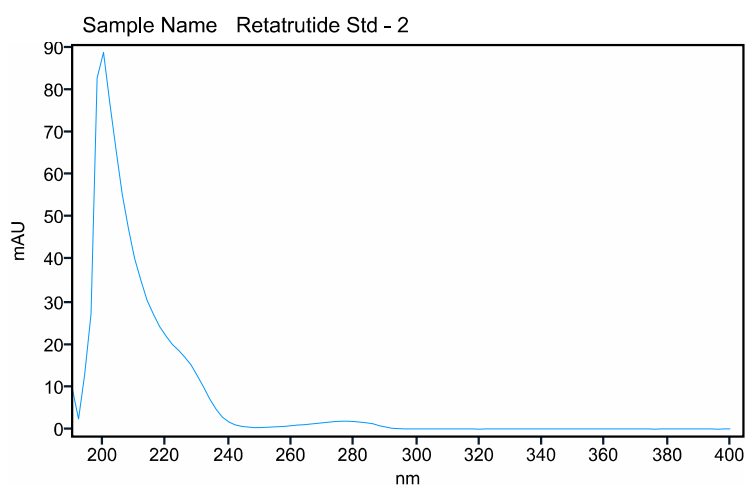
UV Match Spectra

RT:

6.578

Compound Name:

Retatrutide



Compound Spectra Confirm Result Confirmed

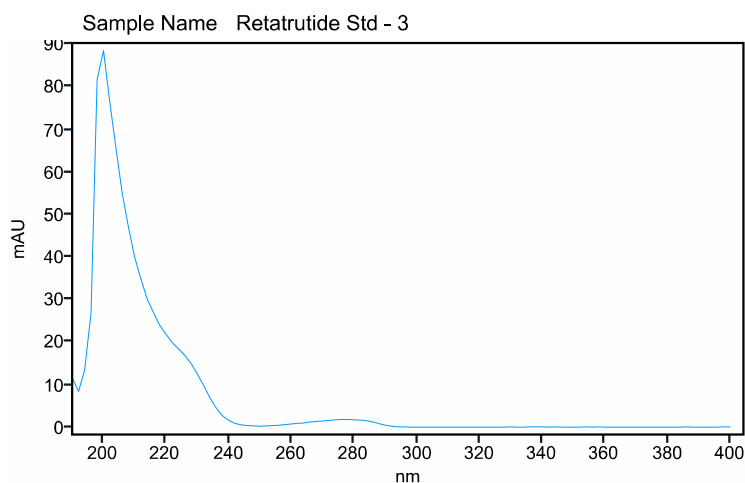
UV Match Spectra

RT:

6.59

Compound Name:

Retatrutide



Compound Spectra Confirm Result Confirmed

Sample Potency and ID Report

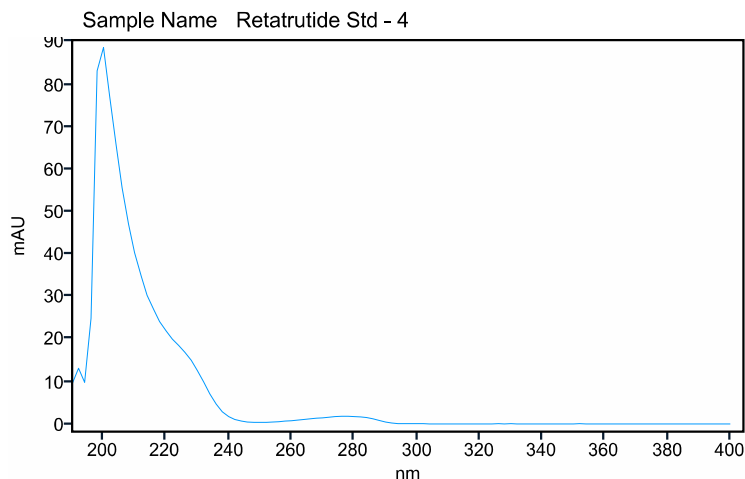
UV Match Spectra

RT:

6.591

Compound Name:

Retatrutide



Compound Spectra Confirm Result Confirmed

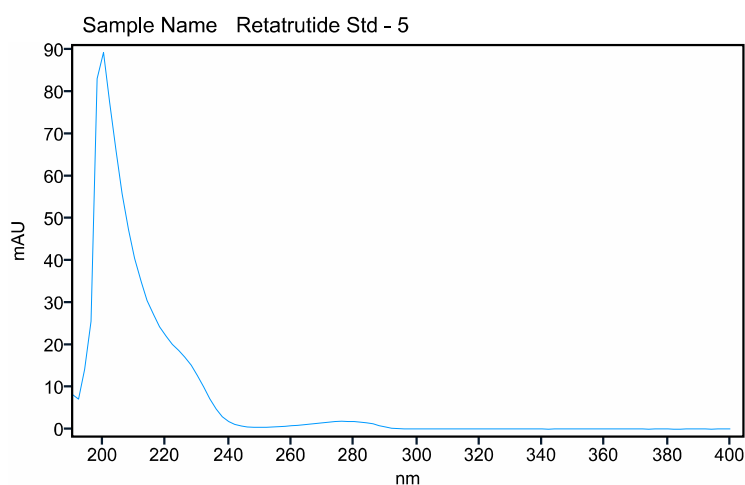
UV Match Spectra

RT:

6.595

Compound Name:

Retatrutide



Compound Spectra Confirm Result Confirmed

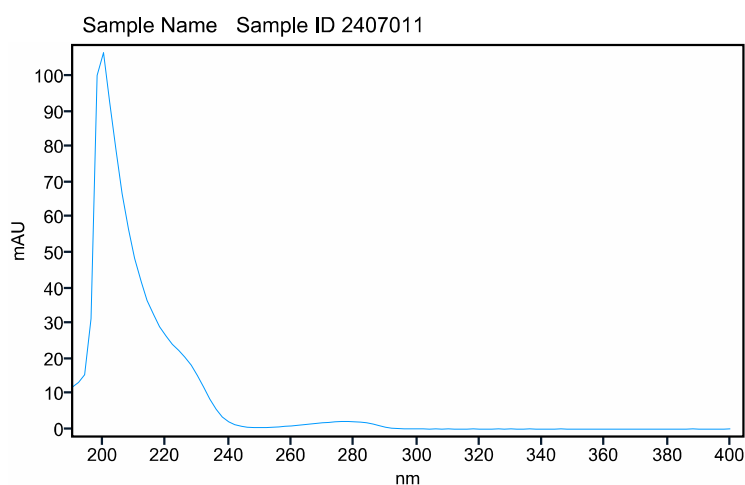
UV Match Spectra

RT:

6.605

Compound Name:

Retatrutide



Compound Spectra Confirm Result Confirmed

Sample Potency and ID Report

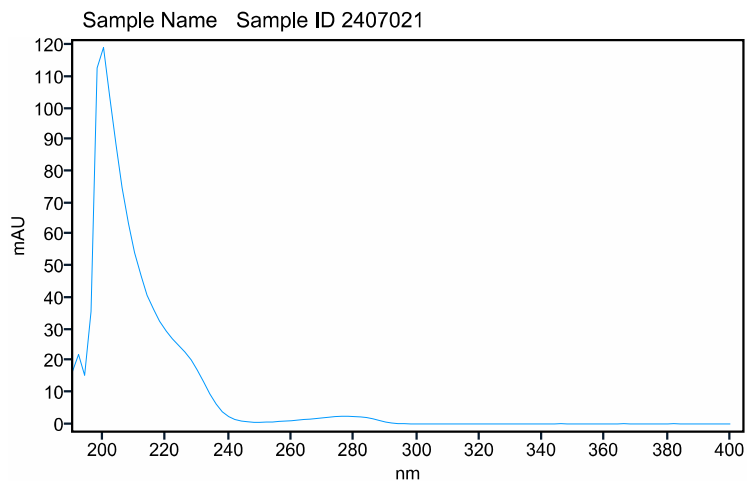
UV Match Spectra

RT:

6.607

Compound Name:

Retatrutide



Compound Spectra Confirm Result Confirmed

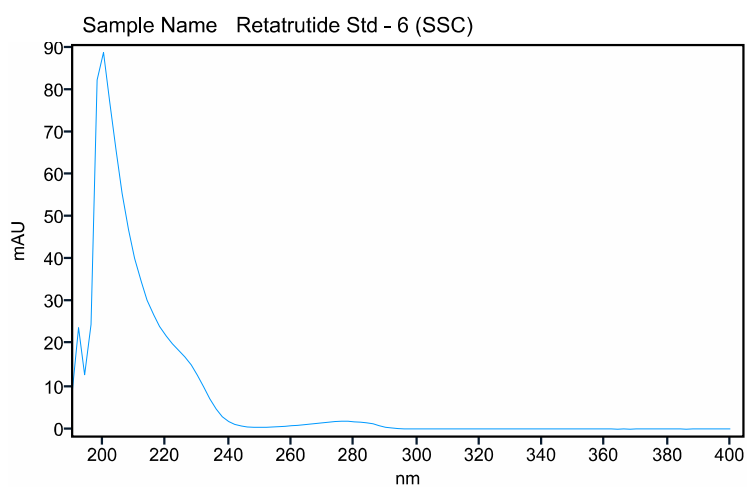
UV Match Spectra

RT:

6.604

Compound Name:

Retatrutide

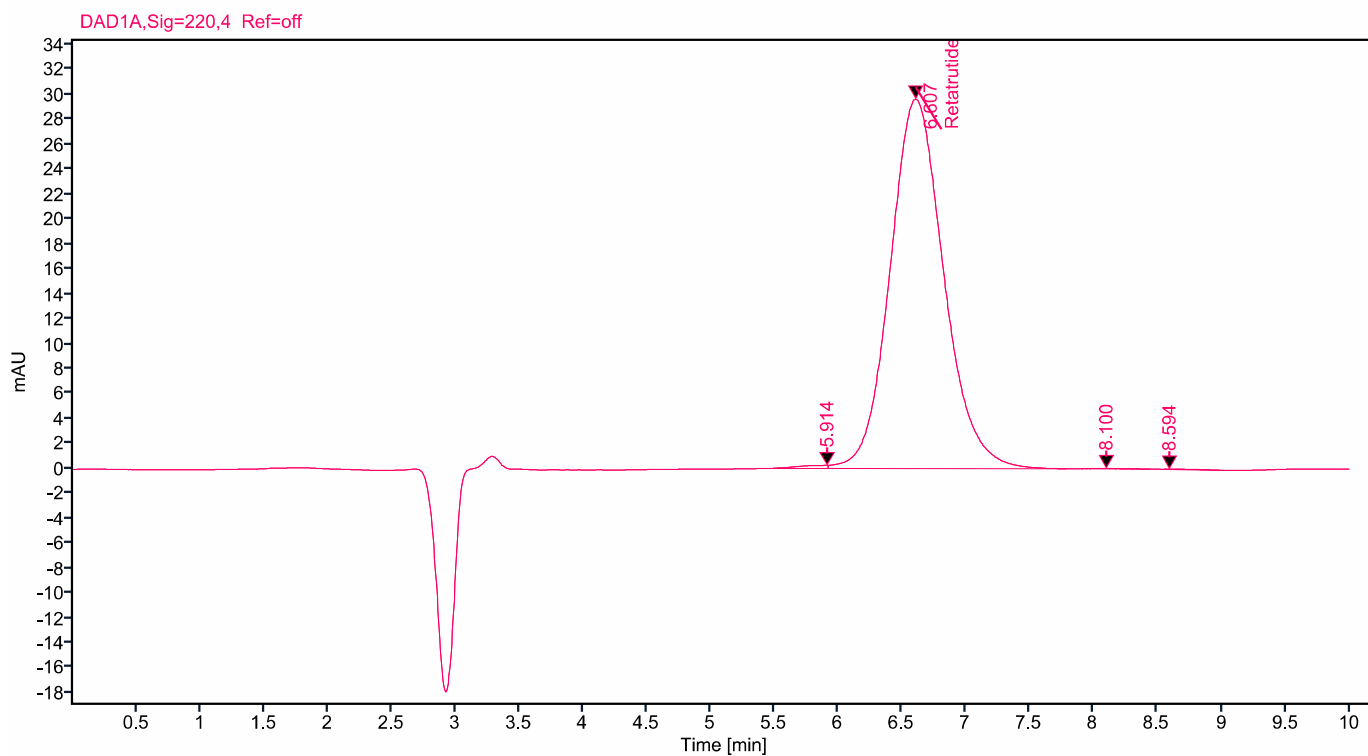
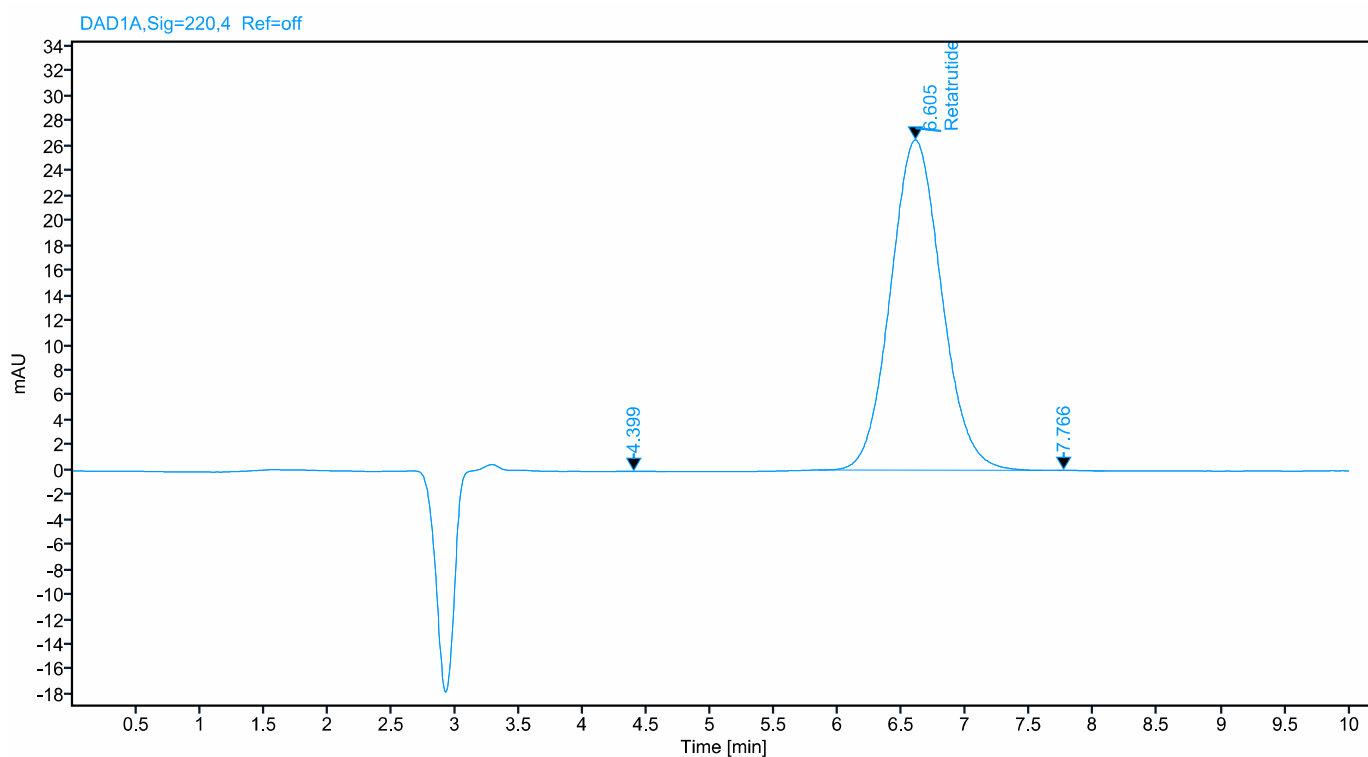


Compound Spectra Confirm Result Confirmed

Sample Purity Report

Sequence Name 1004_aml_071924

Sequence Acquired Date 2024-07-19 11:17:03-04:00



Sample Purity Report

Sample Name	Name	RT	Area	Peak Area Percent
Sample ID 2407011		4.399	0.318	0.043
Sample ID 2407011	Retatrutide	6.605	735.766	99.915
Sample ID 2407011		7.766	0.305	0.041
Sample ID 2407021		5.914	3.981	0.456
Sample ID 2407021	Retatrutide	6.607	867.802	99.425
Sample ID 2407021		8.100	0.410	0.047
Sample ID 2407021		8.594	0.628	0.072

BONUS: HOW DOES HPLC WORK?

This is a very simplified explanation:

- It starts with an HPLC method that has been developed and validated by TrustPointe Analytics. This means that the method has been proven to provide accurate results for your specific target compound.
- The sample is injected into the system using the Autosampler under conditions set by the validated method.
- The solvents on top of the system carry the sample through the HPLC column which separates the injected sample into its individual components by molecular size, charge, shape, interaction with the phases, etc.
- This separation allows TrustPointe to directly analyze only the target compound in the mixture. It also allows us to identify the target compound based on the time it takes to separate it in the column (retention time).
- The HPLC is equipped with a light detector, and the sample absorbs some of this light as it passes through the detector. This is converted to a signal which is then used to quantify a compound.
- All of our HPLC Methods utilize an external standard - which means we inject a standard solution prepared at a known concentration multiple times to create a calibration curve. That calibration curve is used to calculate the concentration of the target compound in the sample.

