

Multiplexed LC-MS/MS Bioanalysis of Semaglutide and Tirzepatide in Rat Plasma and Brain Tissue



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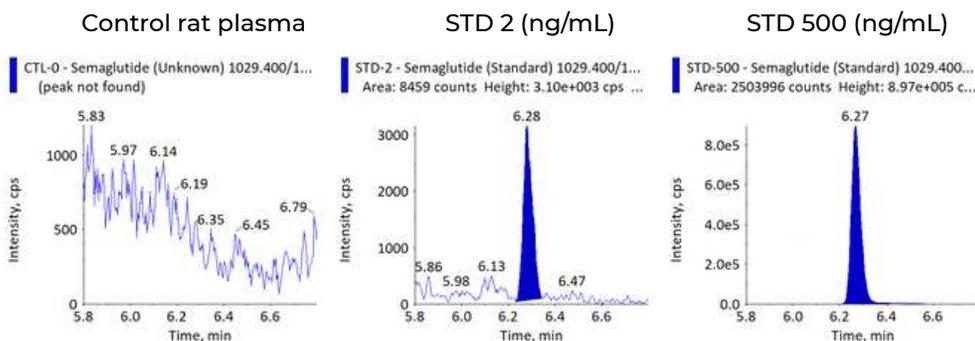
Proven methods for faster peptide bioanalysis

- Established semaglutide and tirzepatide methods for plasma and tissue—no charge for method development when existing assays apply
- Broad, non-proprietary platform adaptable across species and study types
- Low ng/mL detection limits for confident quantitation in complex matrices
- High-throughput workflows that speed startup and deliver quality data
- Selective, multiplexed LC-MS/MS for peptides and metabolites in a single run
- Scalable experience—hundreds of peptide therapeutics supported, enabling fast onboarding and reproducibility across labs and studies

Mass spectrometry conditions

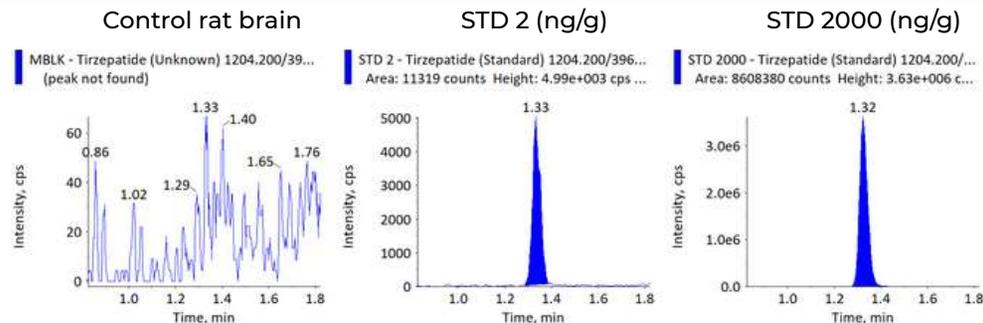
Analyte	Q1 (Da)	Q3 (Da)	CE	DP
Semaglutide	1029.4	1238.2	45	60
Tirzepatide	1204.2	396.3	36	60
Liraglutide (IS)	938.7	1064.3	40	60

Precision and accuracy of n=6 QCs of semaglutide in rat plasma



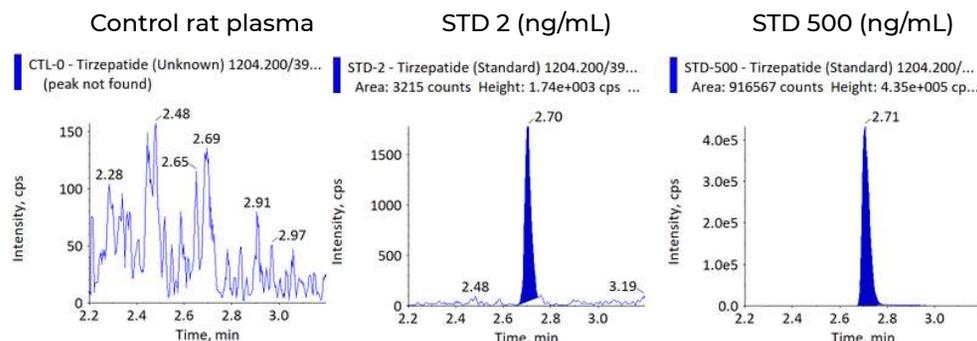
QC ID	Nominal Concentration (ng/mL)	Mean Concentration (ng/mL)	Accuracy (%)	CV (%)
LLOQ-QC	2.00	2.03	101.5	5.9
LQC	6.00	6.06	101.0	3.6
MQC	150	149	99.3	3.8
HQC	375	396	105.6	2.8

Precision and accuracy of n=6 qcs of tirzepatide in rat brain



QC ID	Nominal Concentration (ng/g)	Mean Concentration (ng/g)	Accuracy (%)	CV (%)
LLOQ-QC	2.00	1.80	90.0	10.6
LQC	6.00	5.35	89.2	5.4
MQC	600	648	108.0	2.0
HQC	1500	1490	99.3	4.8

Precision and accuracy of n=6 QCs of tirzepatide in rat plasma



QC ID	Nominal Concentration (ng/mL)	Mean Concentration (ng/mL)	Accuracy (%)	CV (%)
LLOQ-QC	2.00	2.08	104.0	4.1
LQC	6.00	5.96	99.3	1.9
MQC	150	143	95.3	5.2
HQC	375	356	94.9	5.5