Figure S1a. Tandem Mass Spectrometry (MS^2) data for **glycine** (as an isoproyl ester)

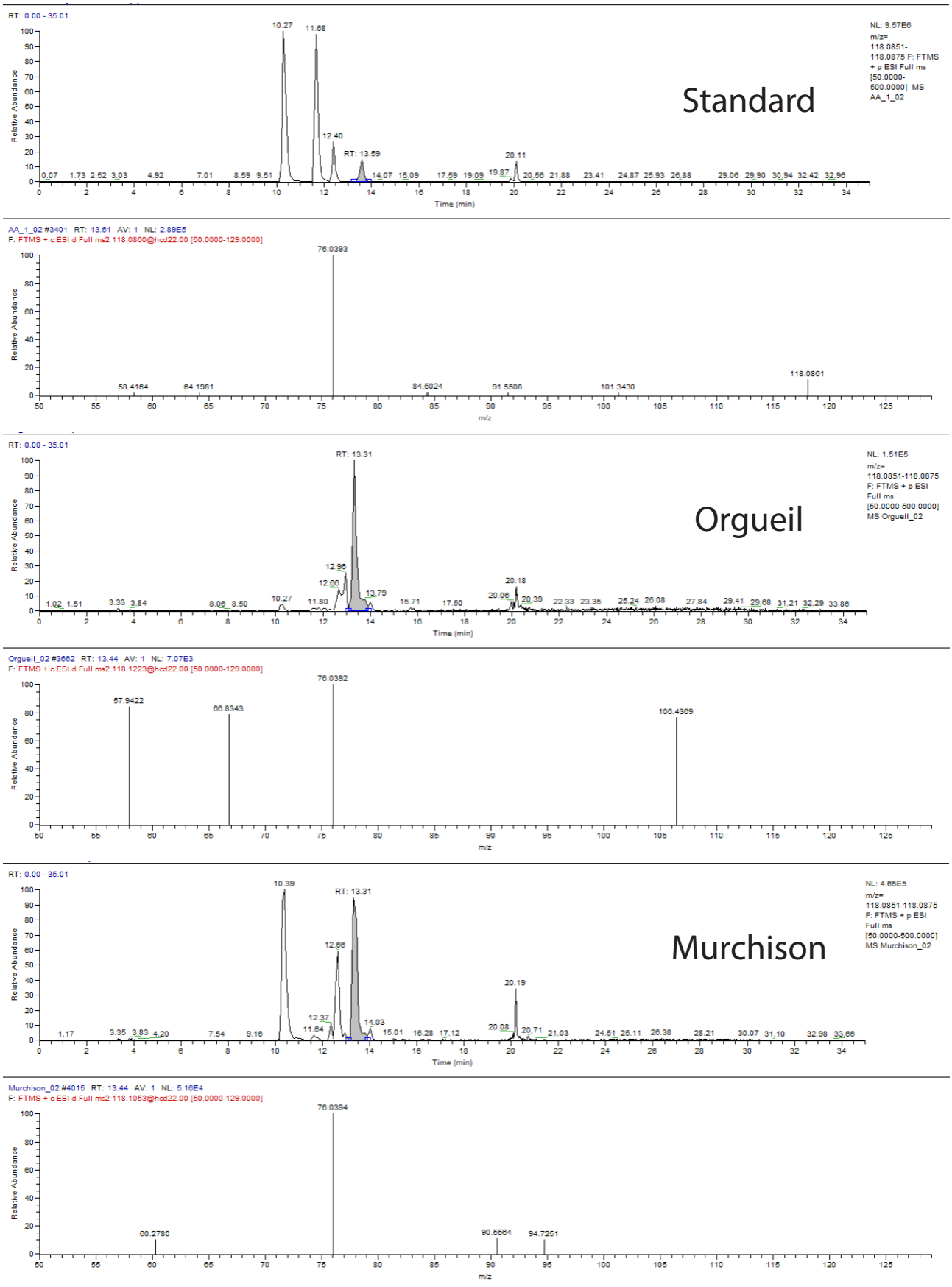


Figure S1b. Tandem Mass Spectrometry (MS^2) data for **β-Alanine** (as an isoproyl ester)

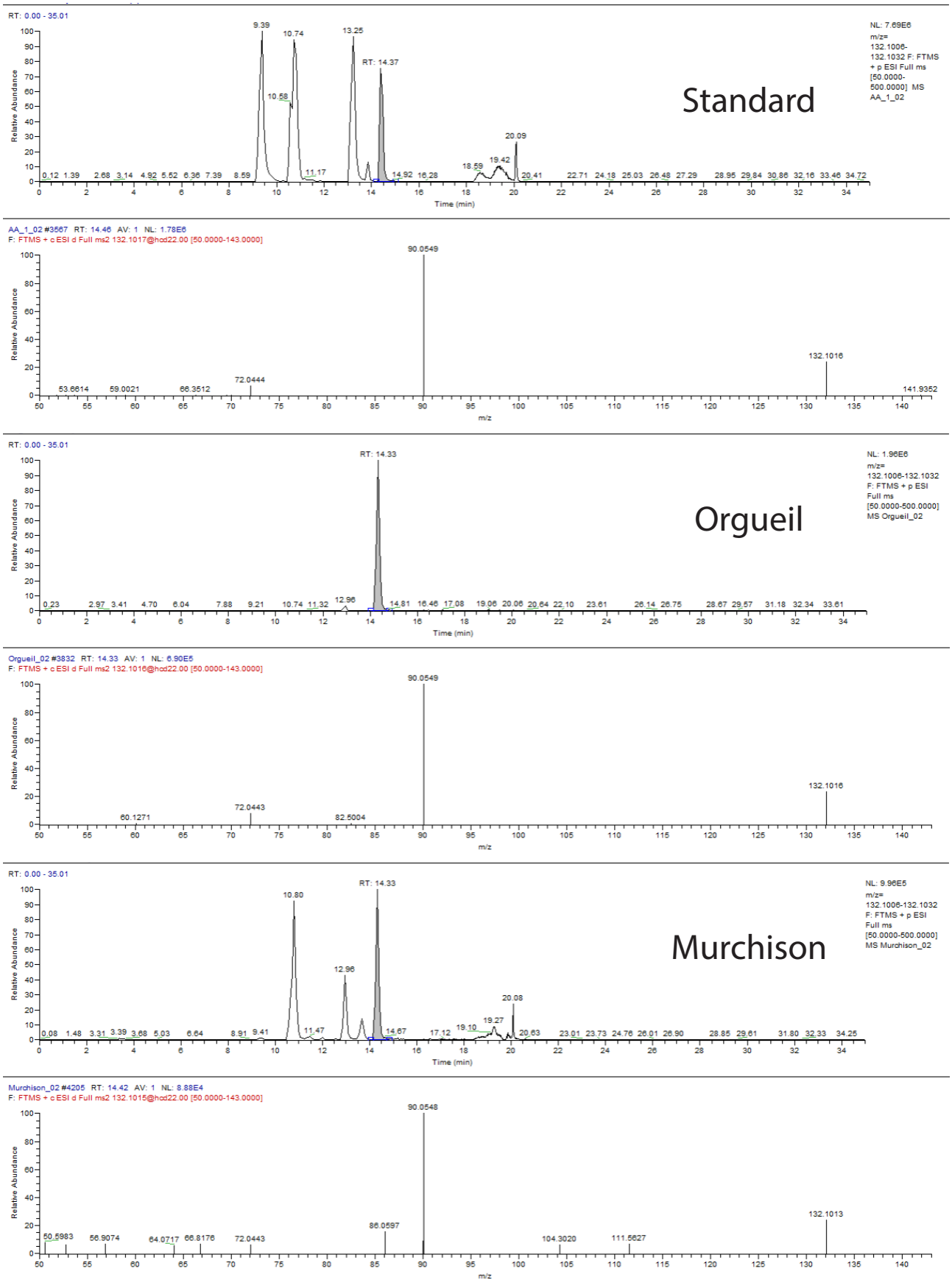


Figure S1c. Tandem Mass Spectrometry (MS^2) data for **serine** (as an isoproyl ester)

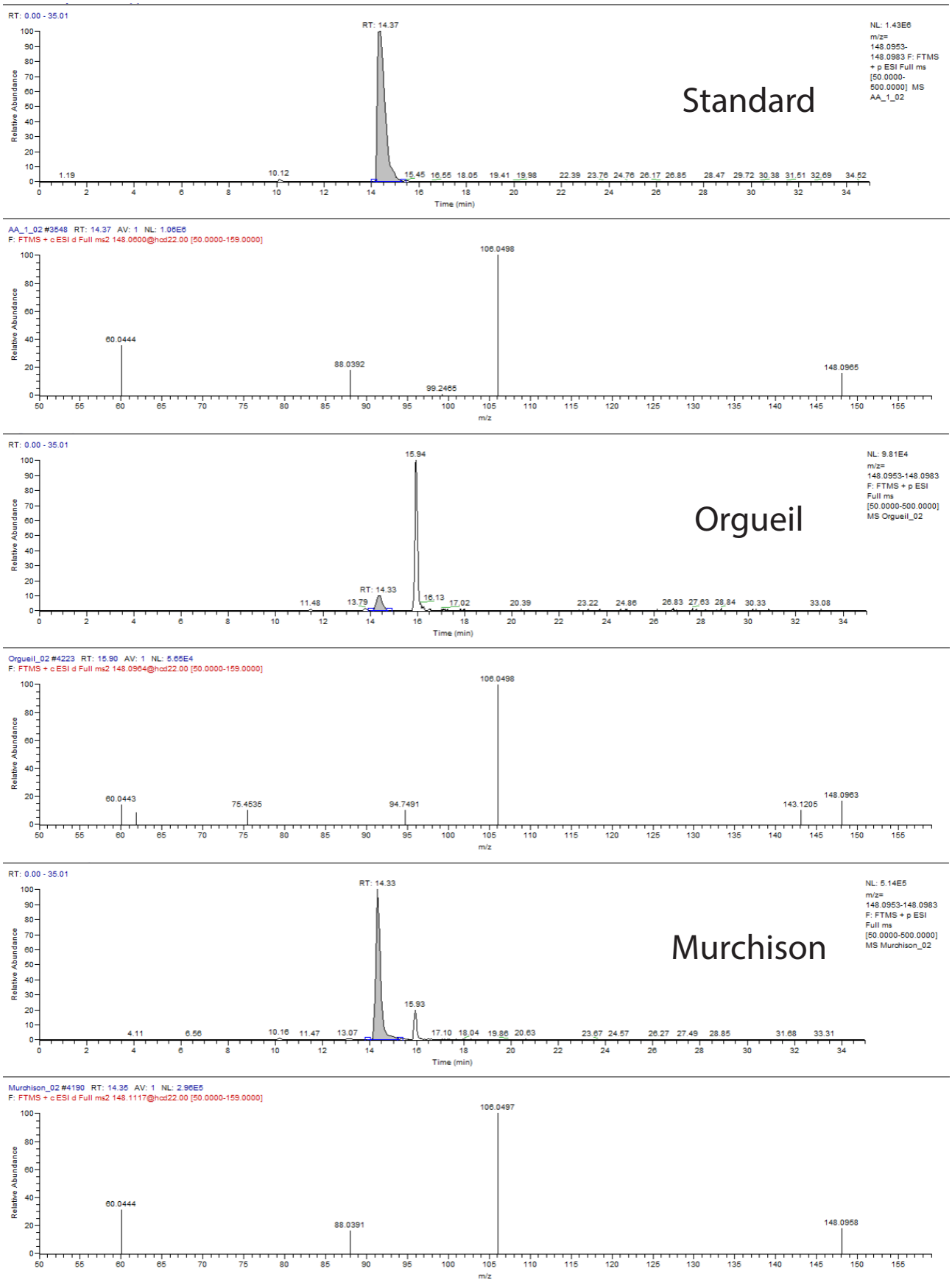
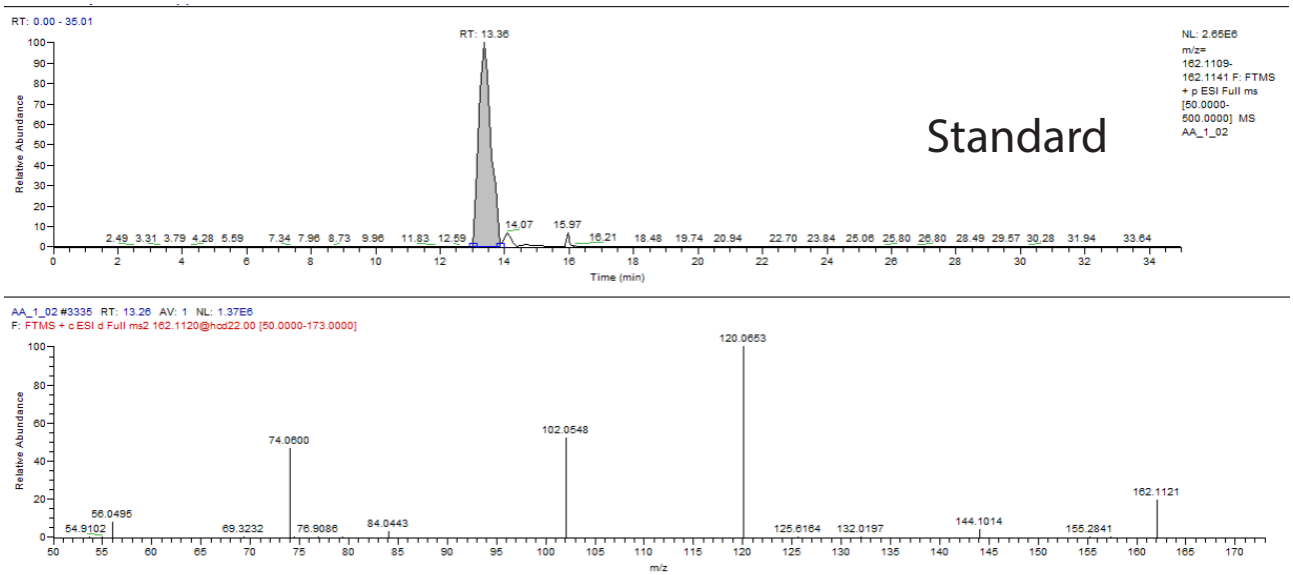


Figure S1d. Tandem Mass Spectrometry (MS^2) data for **threonine** (as an isoproyl ester)



Orgueil

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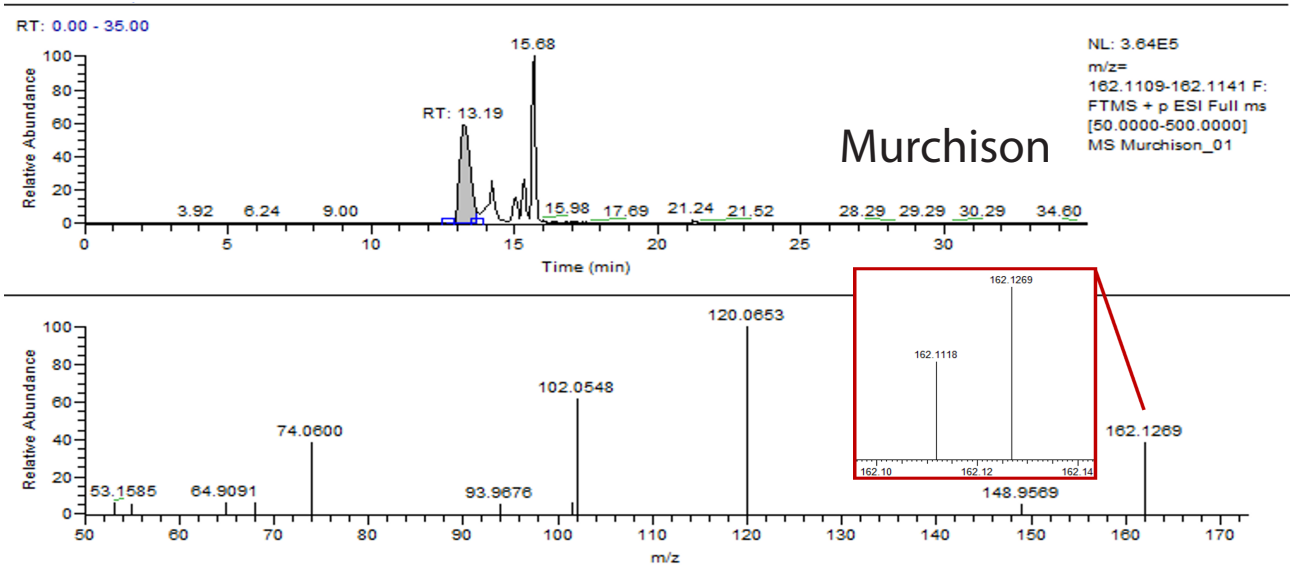
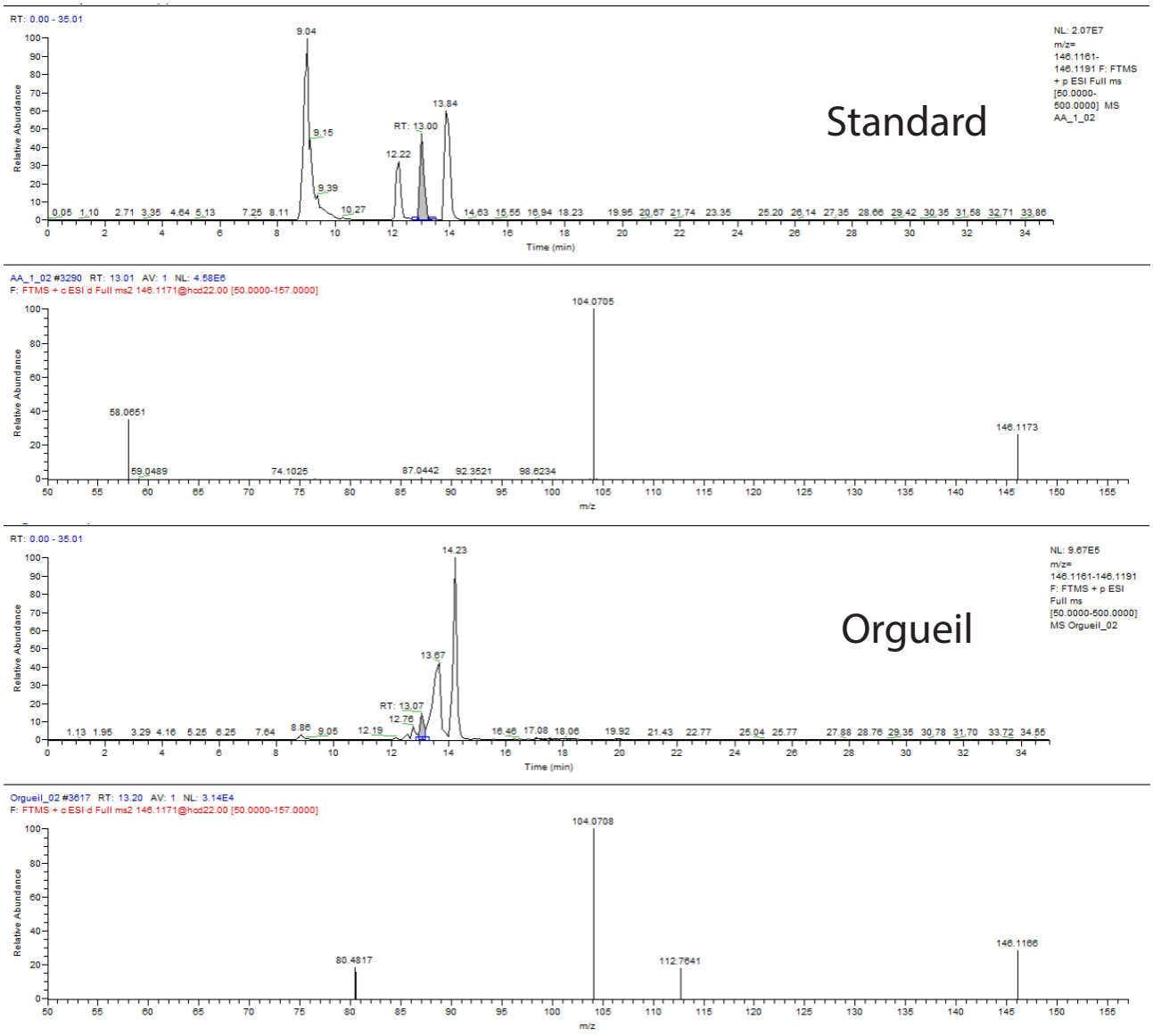


Figure S1e. Tandem Mass Spectrometry (MS^2) data for **α-aminoisobutyric acid** (as an isoproyl ester)



Murchison

No MS^2 data availiable

Figure S1f. Tandem Mass Spectrometry (MS^2) data for **aspartic acid** (as an isoproyl ester)

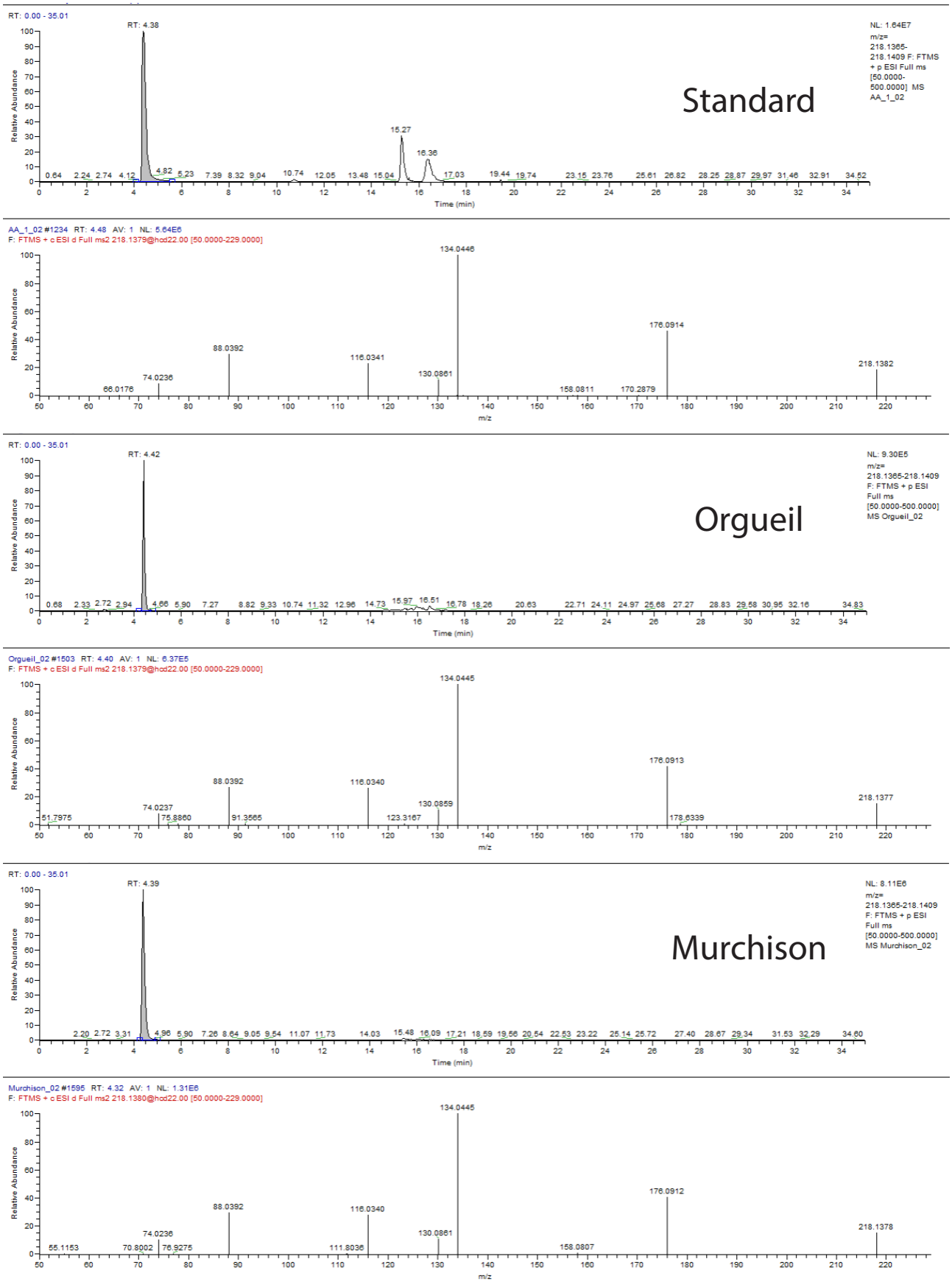
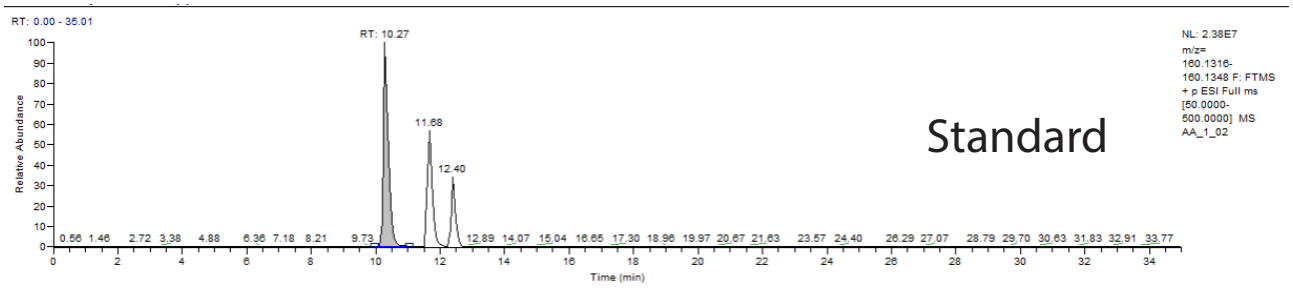
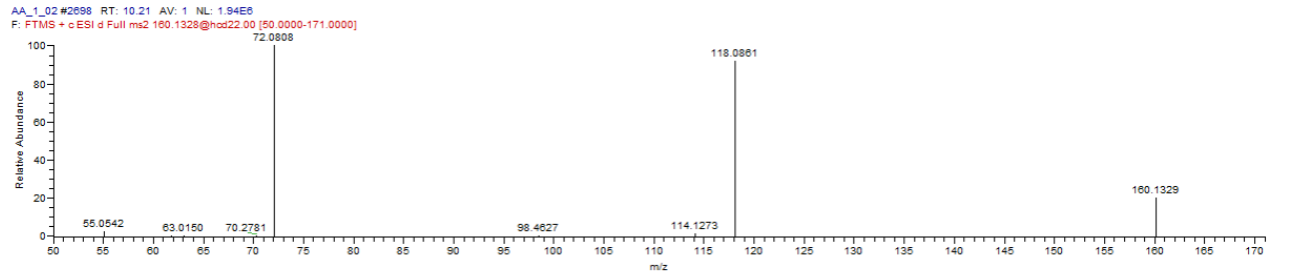


Figure S1g. Tandem Mass Spectrometry (MS^2) data for **valine** (as an isoproyl ester)

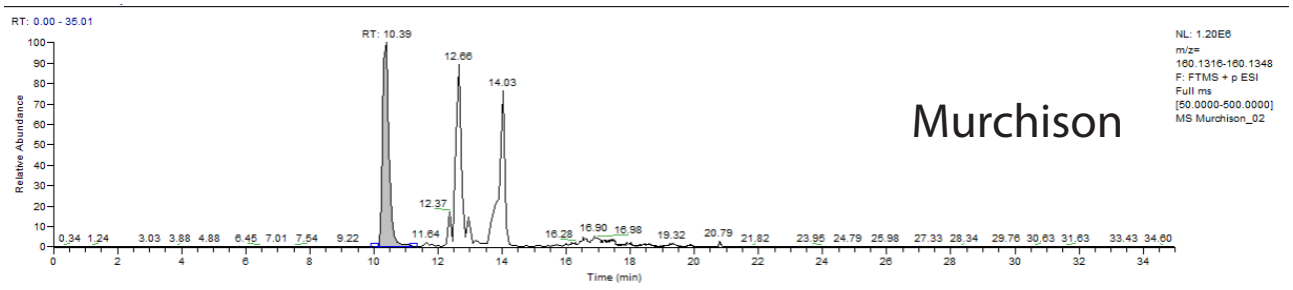


Standard



Orgueil

No MS^2 data availiable



Murchison

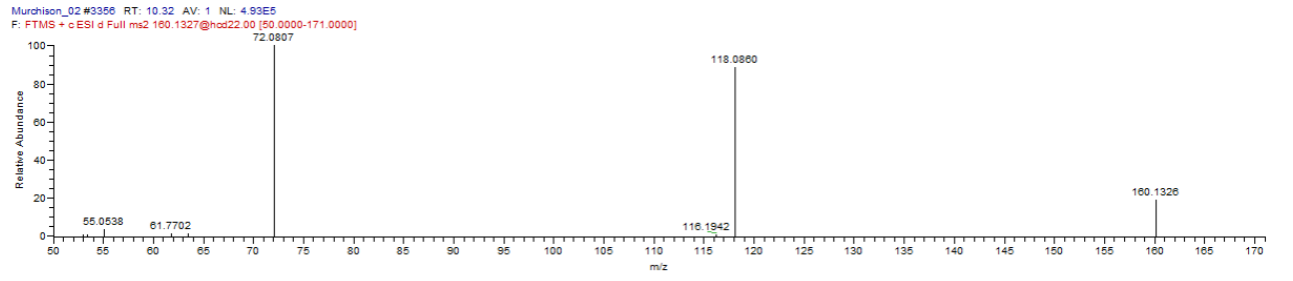


Figure S1h. Tandem Mass Spectrometry (MS^2) data for **isovaline** (as an isoproyl ester)

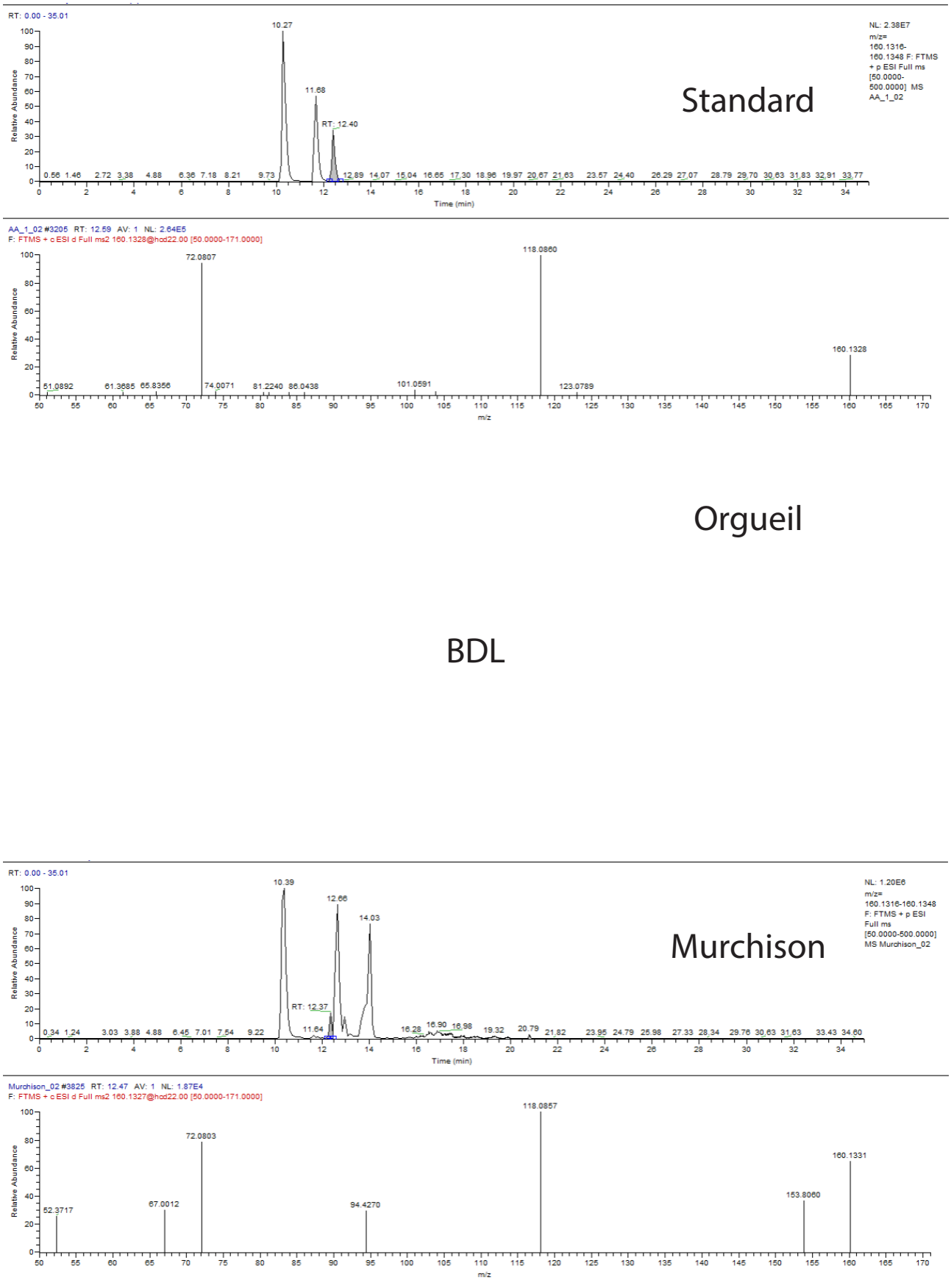


Figure S1i. Tandem Mass Spectrometry (MS^2) data for **glutamic acid** (as an isoproyl ester)

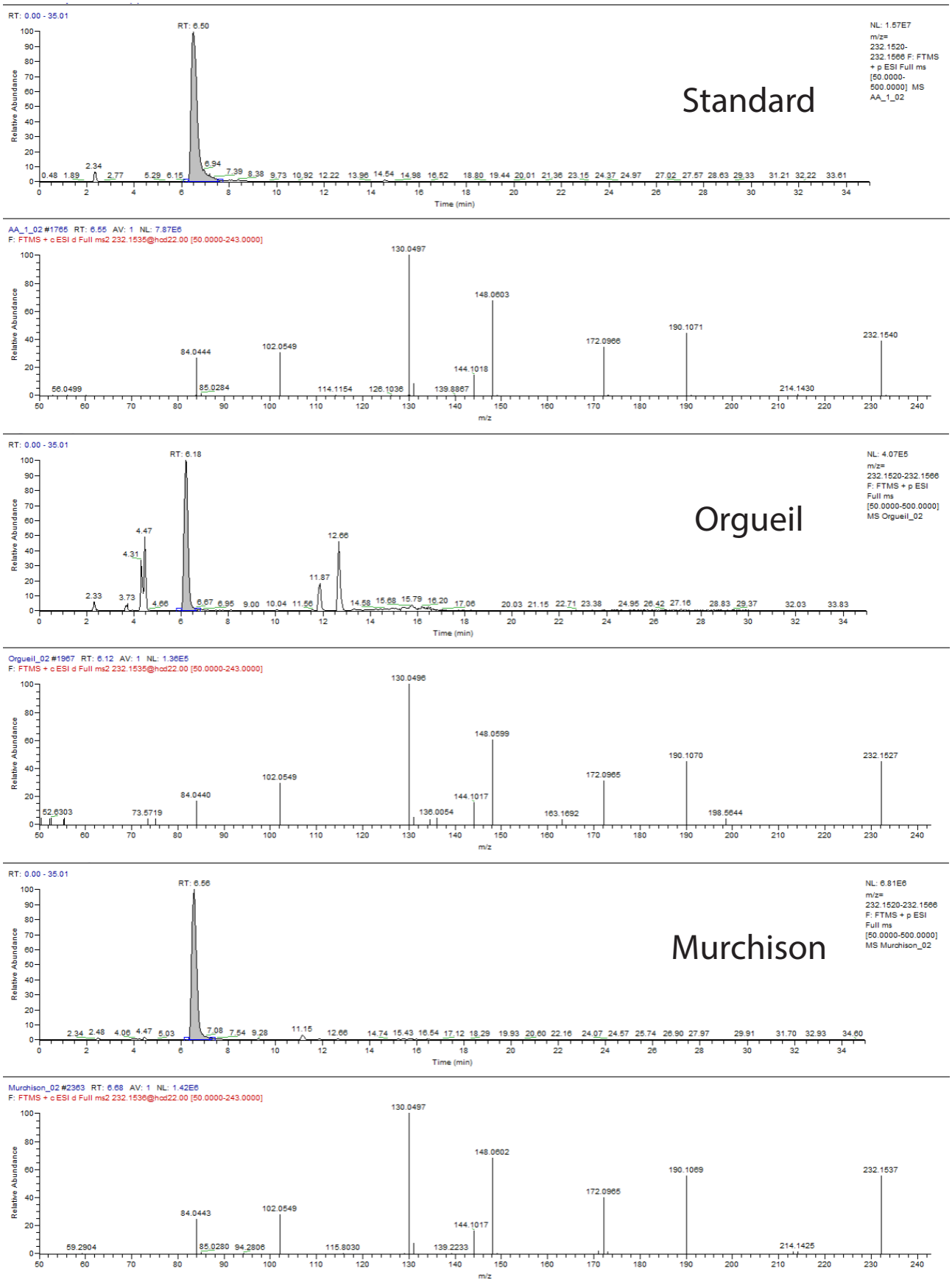


Figure S1j. Tandem Mass Spectrometry (MS^2) data for **leucine** (as an isoproyl ester)

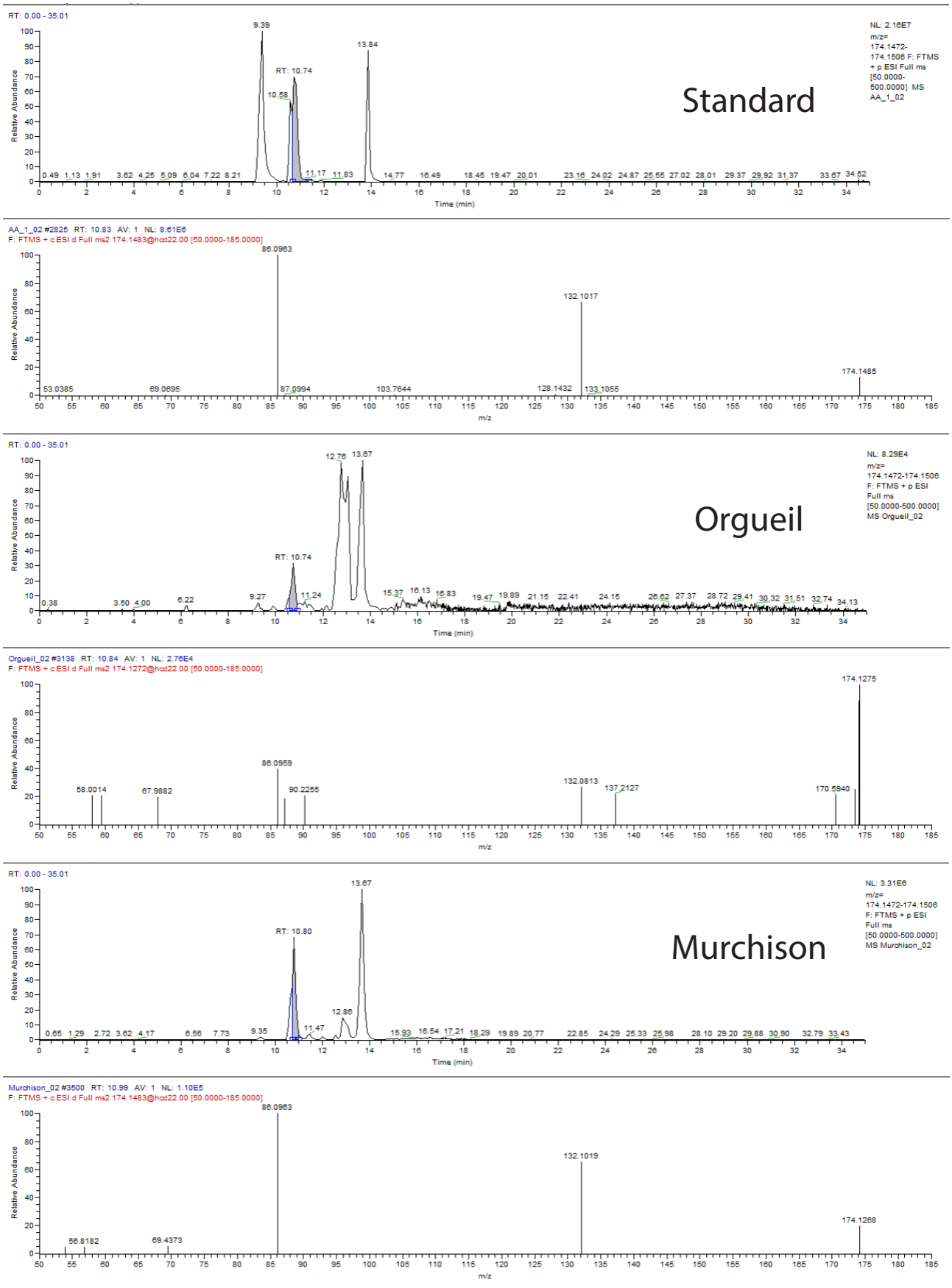
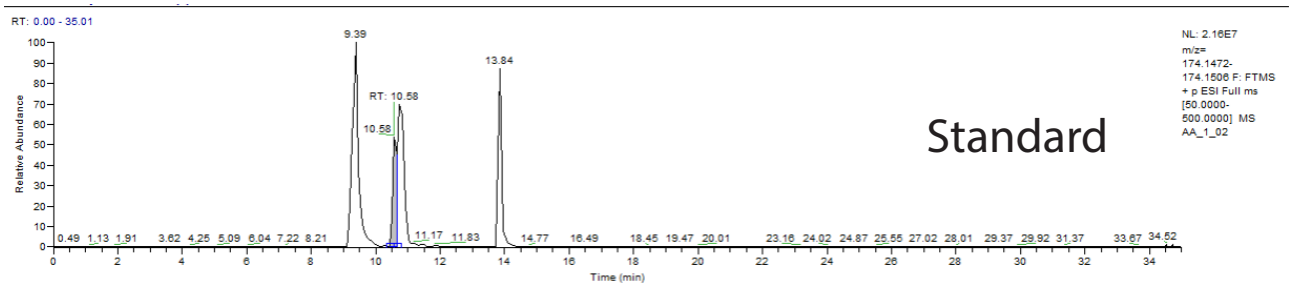


Figure S1k. Tandem Mass Spectrometry (MS^2) data for **isoleucine** (as an isoproyl ester)



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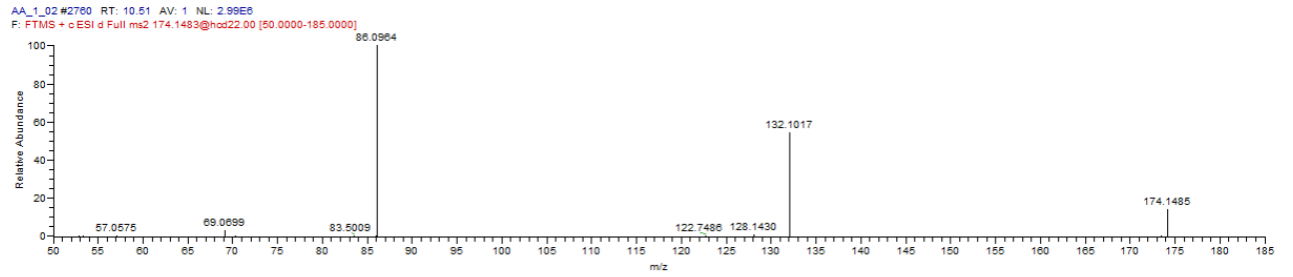
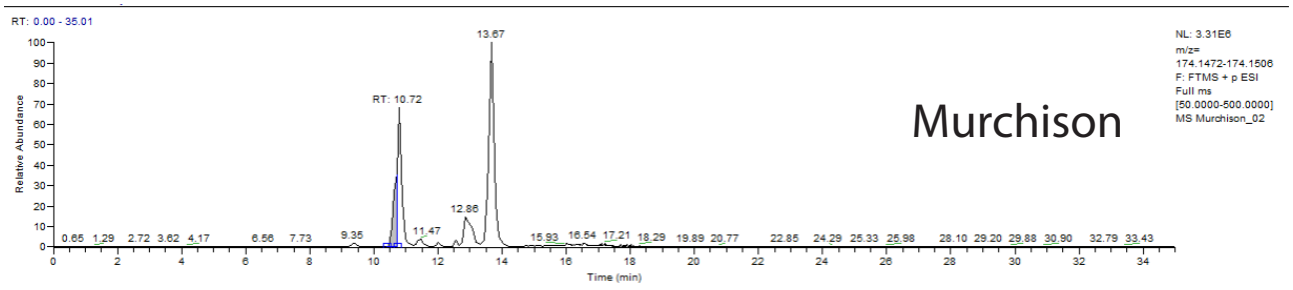


Orgueil

BDL



Murchison

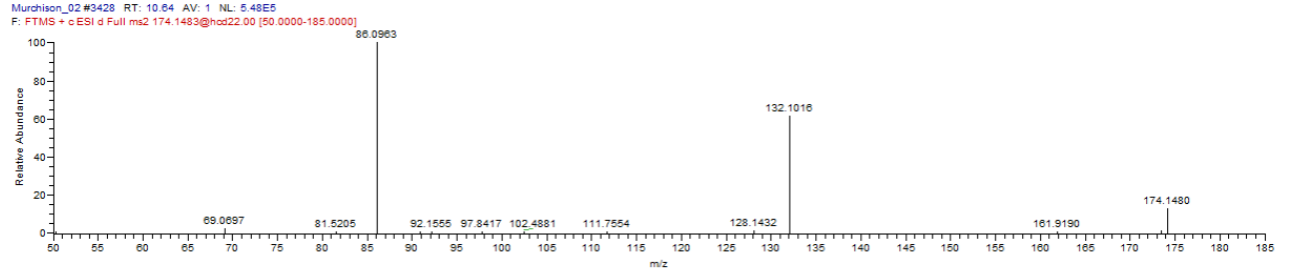
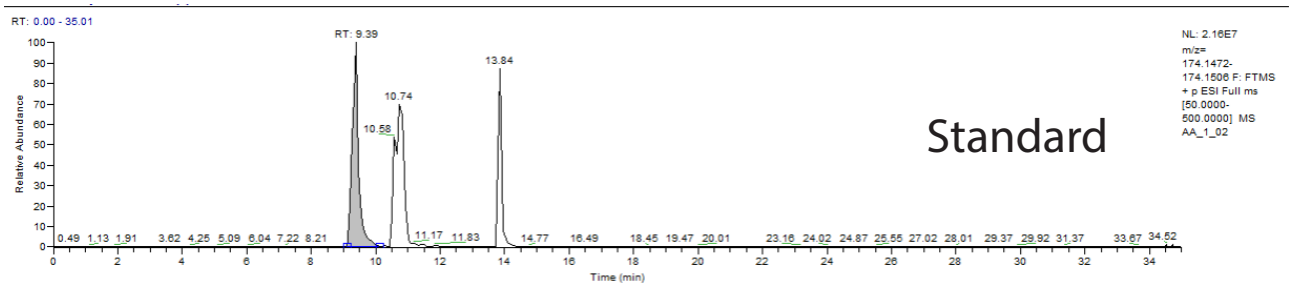


Figure S1l. Tandem Mass Spectrometry (MS^2) data for **alloleucine** (as an isoproyl ester)



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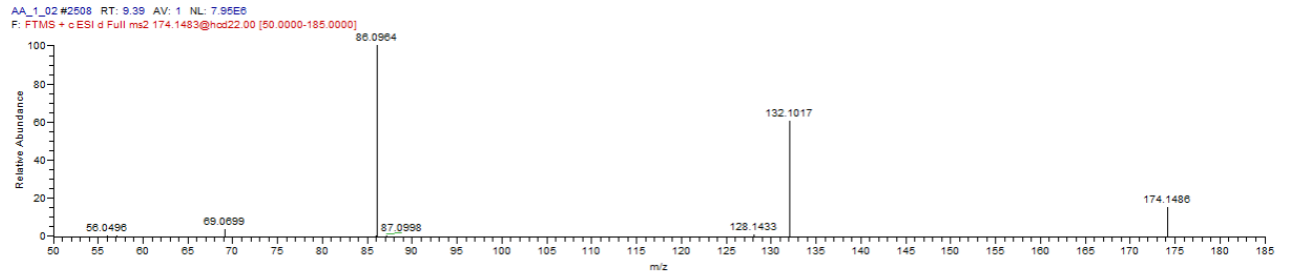

Orgueil

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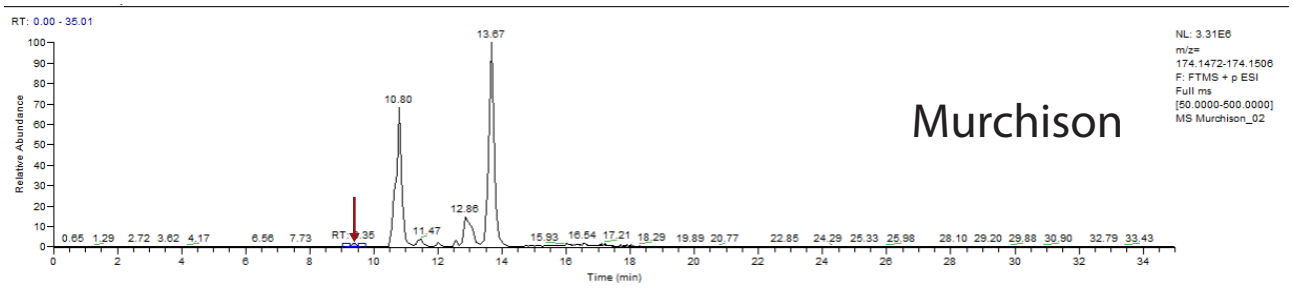

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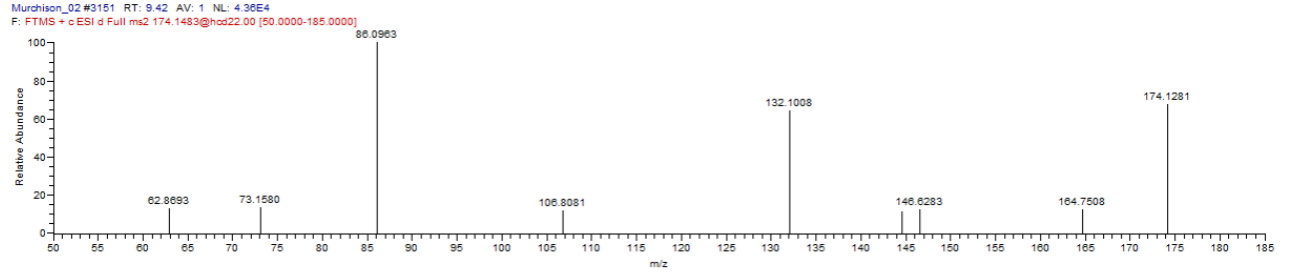
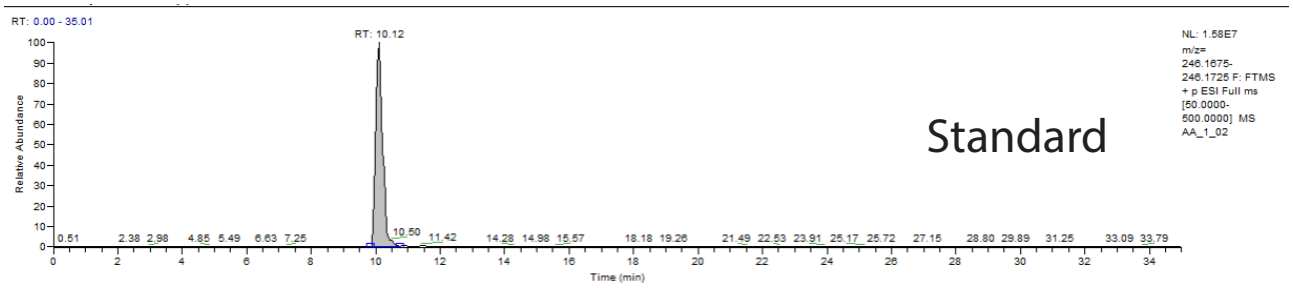
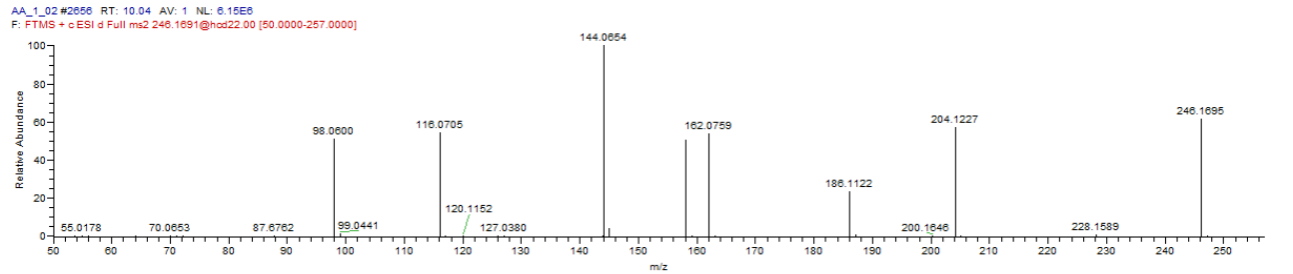


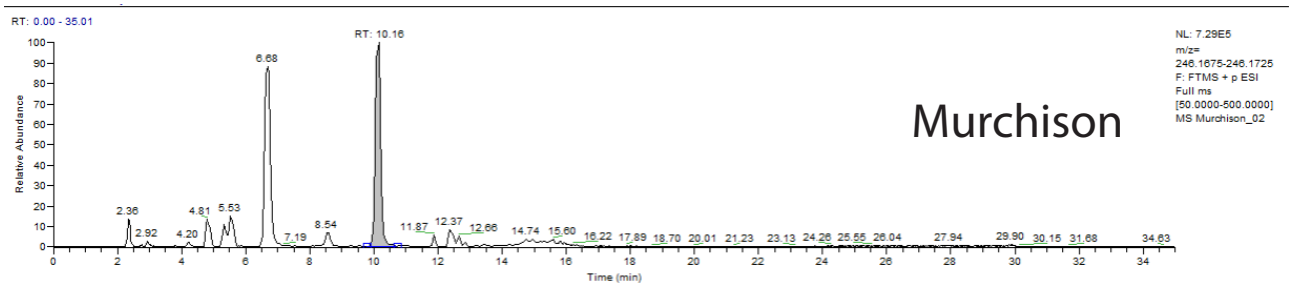
Figure S1m. Tandem Mass Spectrometry (MS^2) data for **α-aminoadipic acid** (as an isoproyl ester)





Orgueil

No MS^2 data availiable



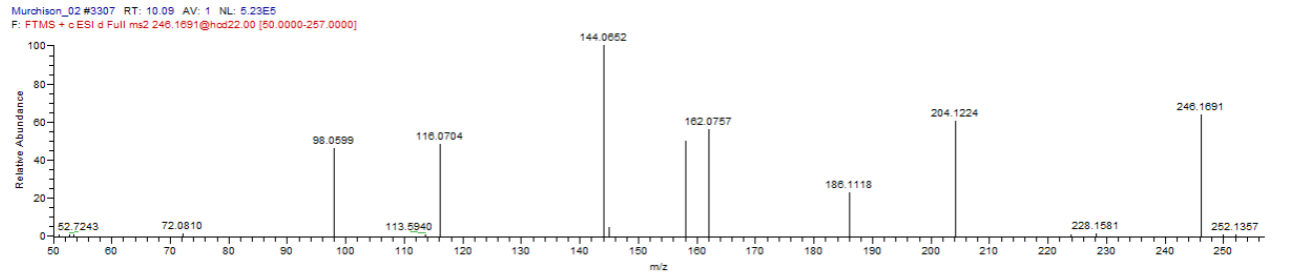
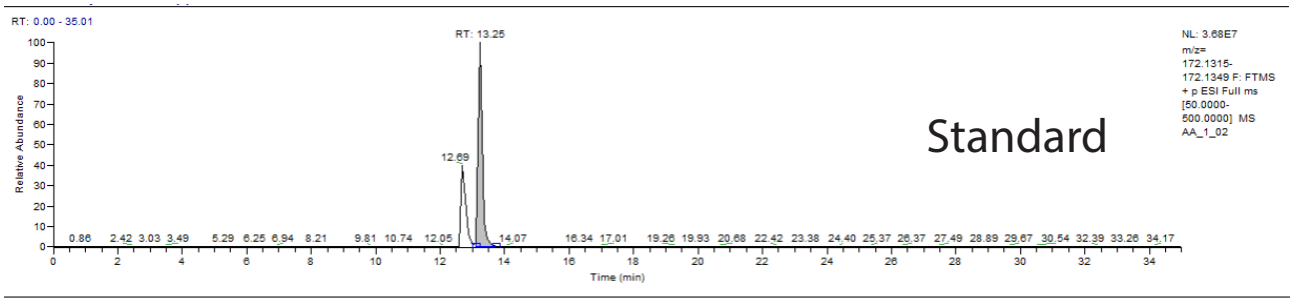
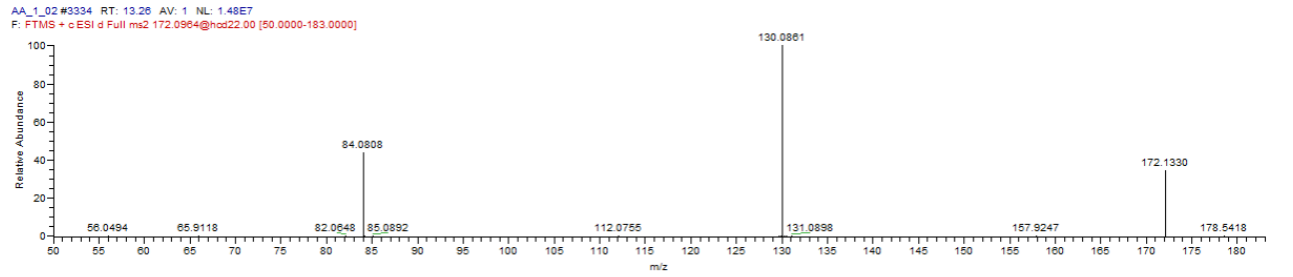
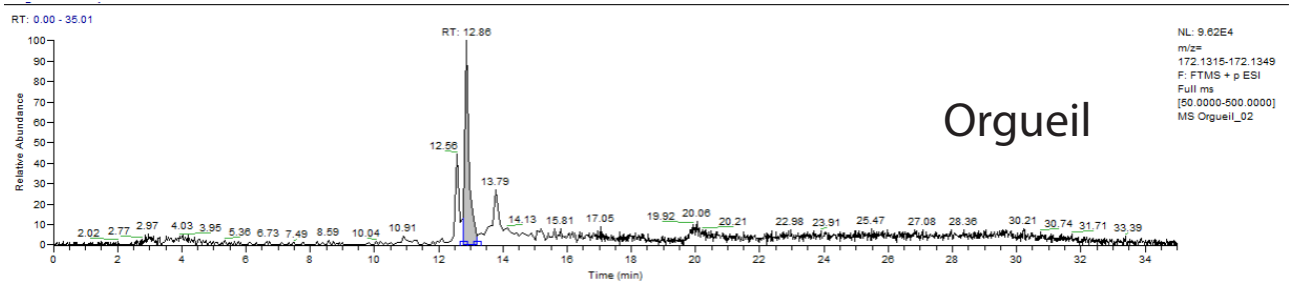
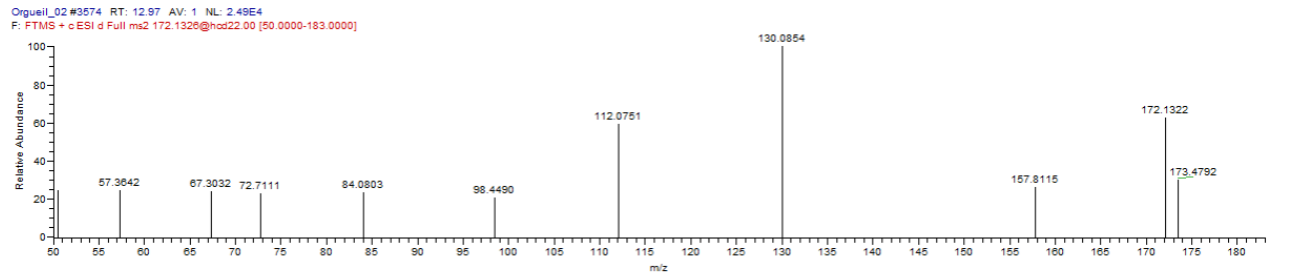


Figure S1n. Tandem Mass Spectrometry (MS^2) data for **pipecolic acid** (as an isoproyl ester)









Murchison

No MS^2 data availiable

Figure S1o. Tandem Mass Spectrometry (MS^2) data for **aminocaproic acid** (as an isoproyl ester)

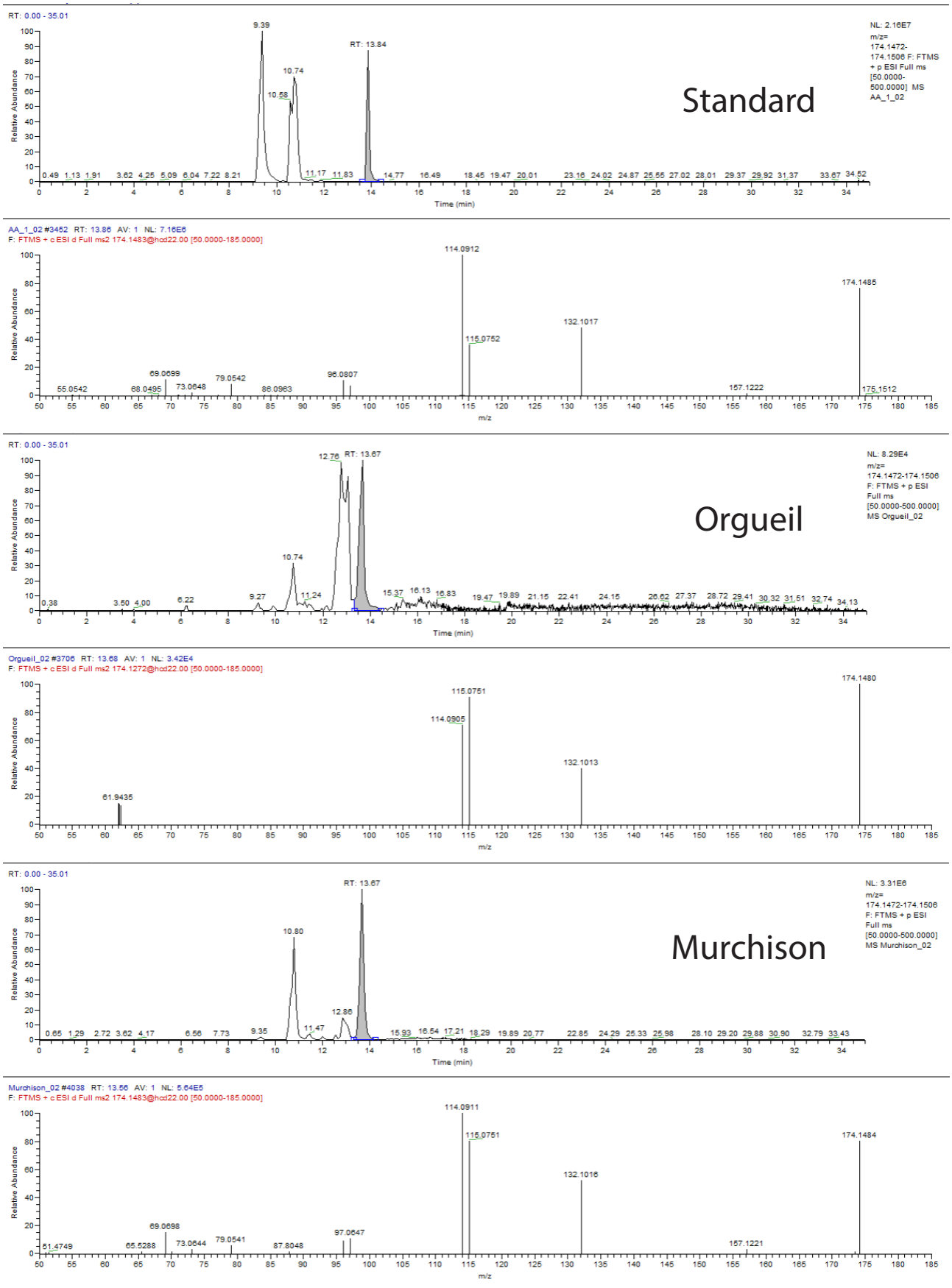
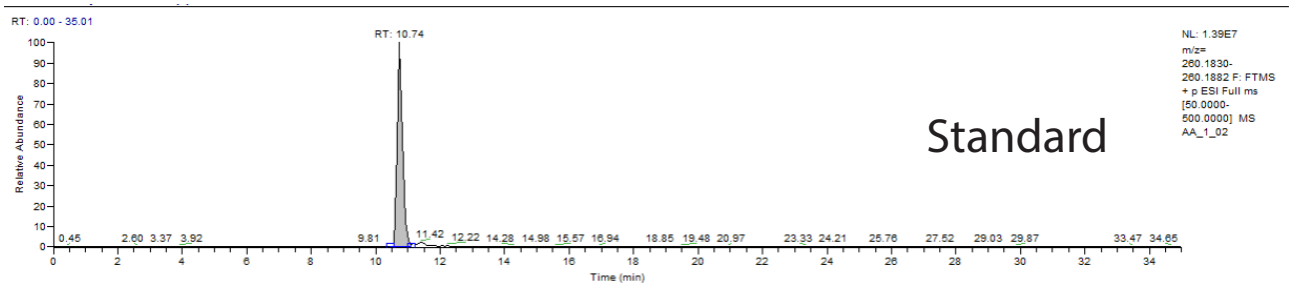
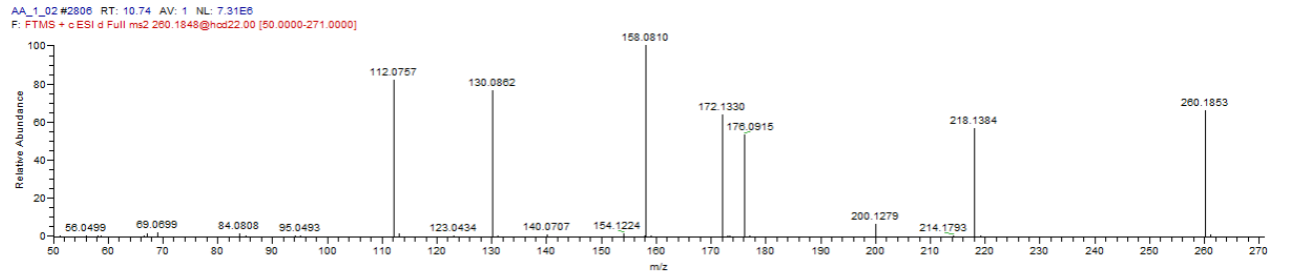


Figure S1p. Tandem Mass Spectrometry (MS^2) data for **α-aminopimelic acid** (as an isoproyl ester)

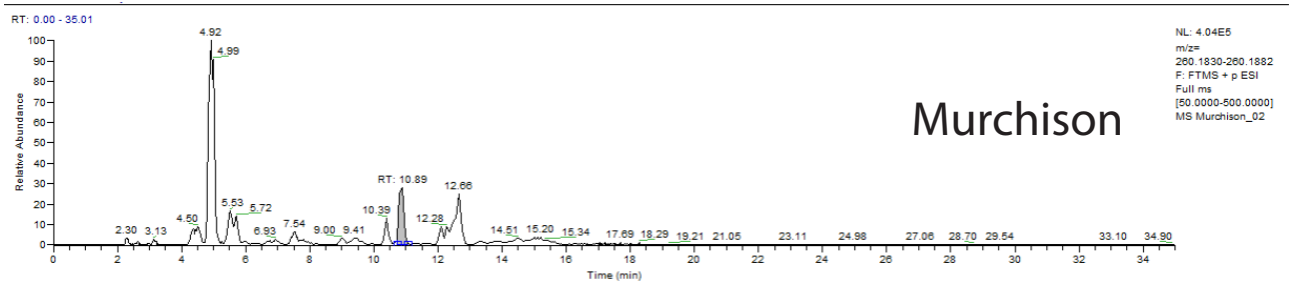


Standard



Orgueil

BDL



Murchison

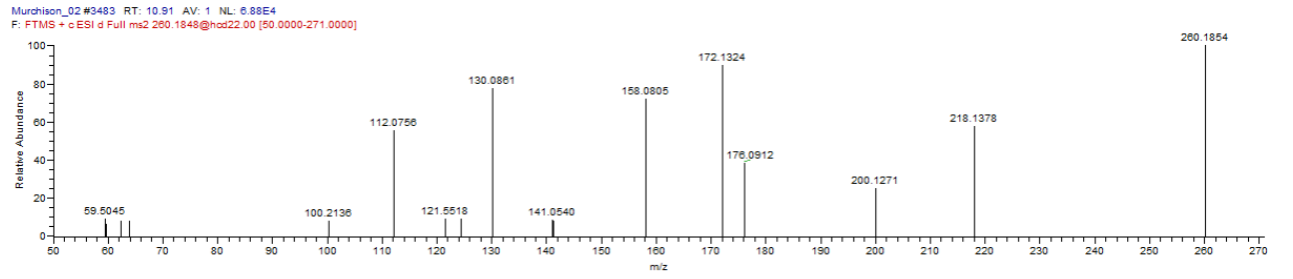


Figure S1q. Tandem Mass Spectrometry (MS^2) data for **phenylalanine** (as an isoproyl ester)

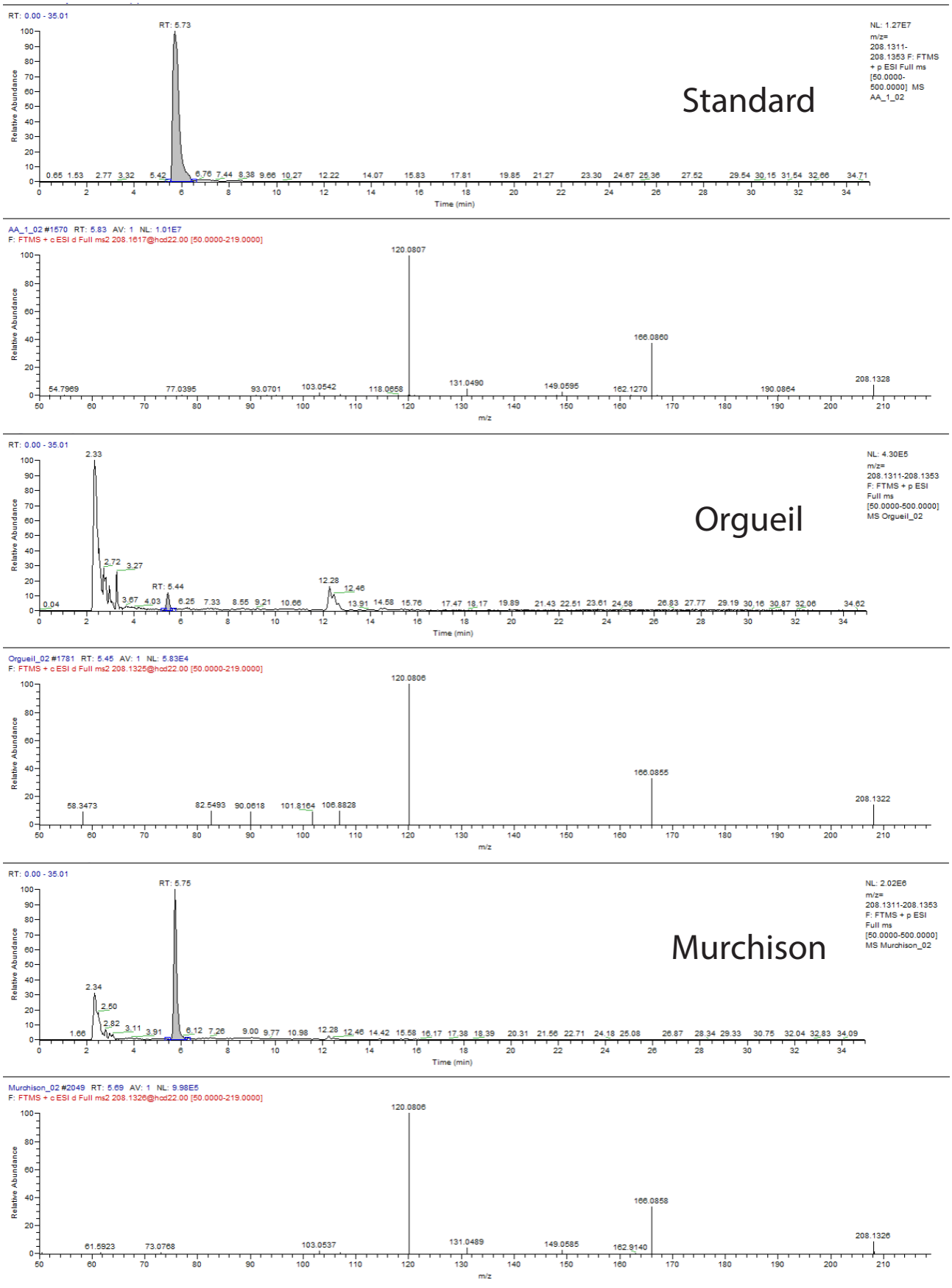
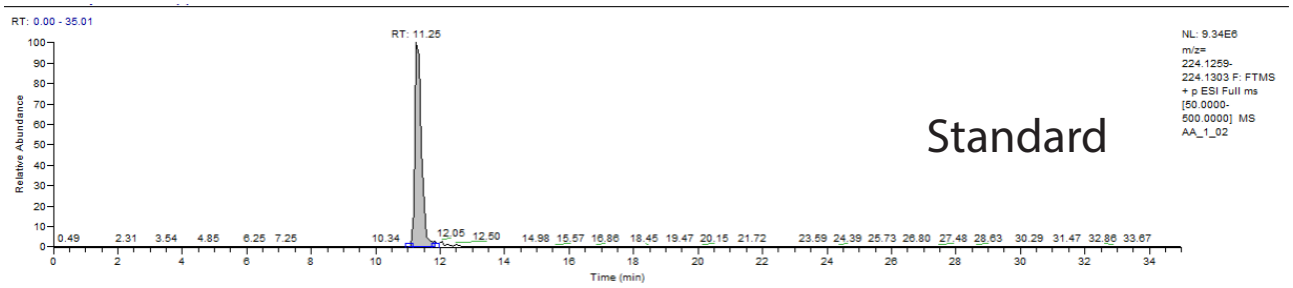
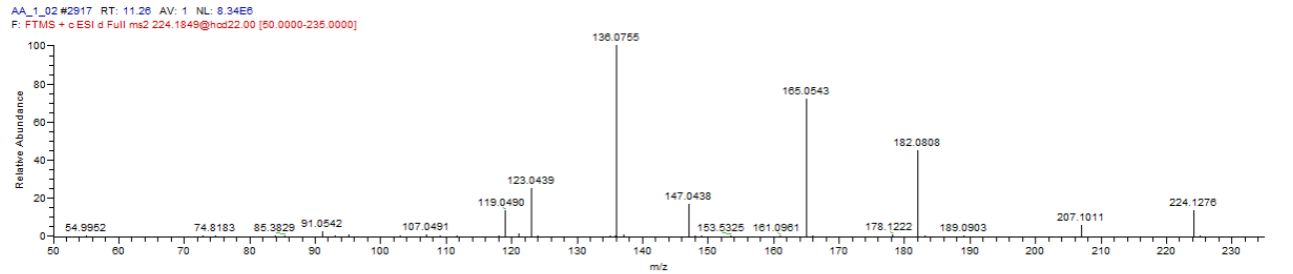


Figure S1r. Tandem Mass Spectrometry (MS^2) data for **tyrosine** (as an isoproyl ester)

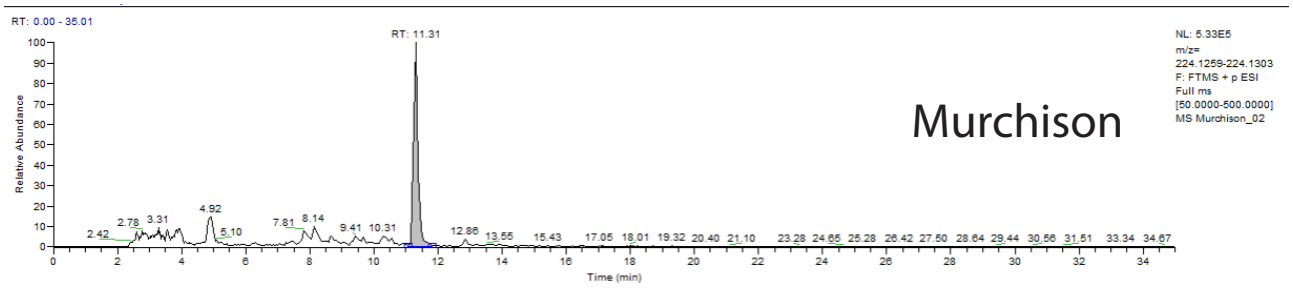
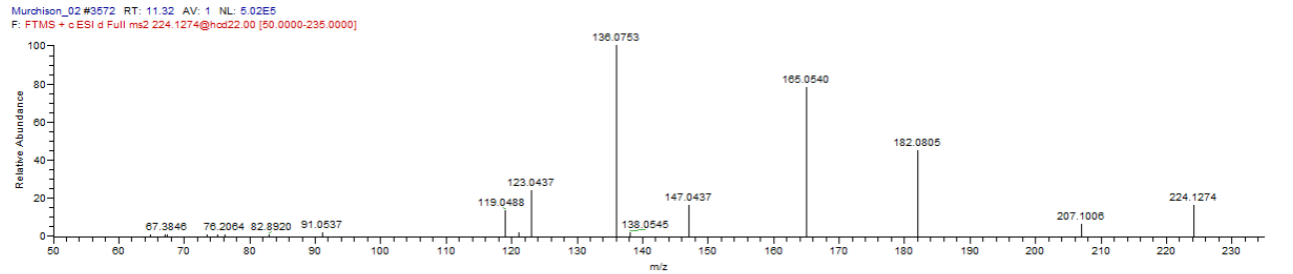


Standard



Orgueil

No MS^2 data availiable



Murchison