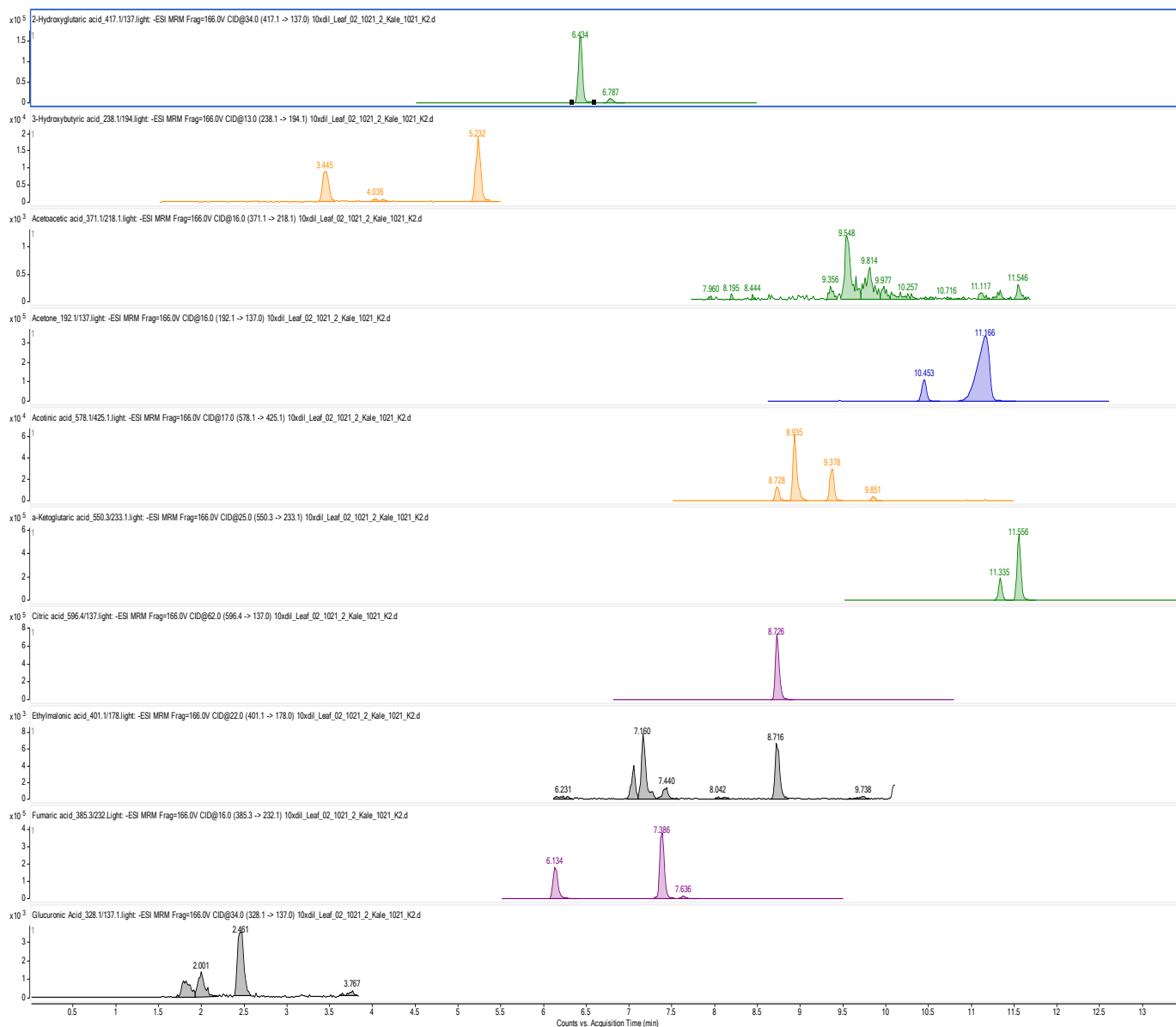
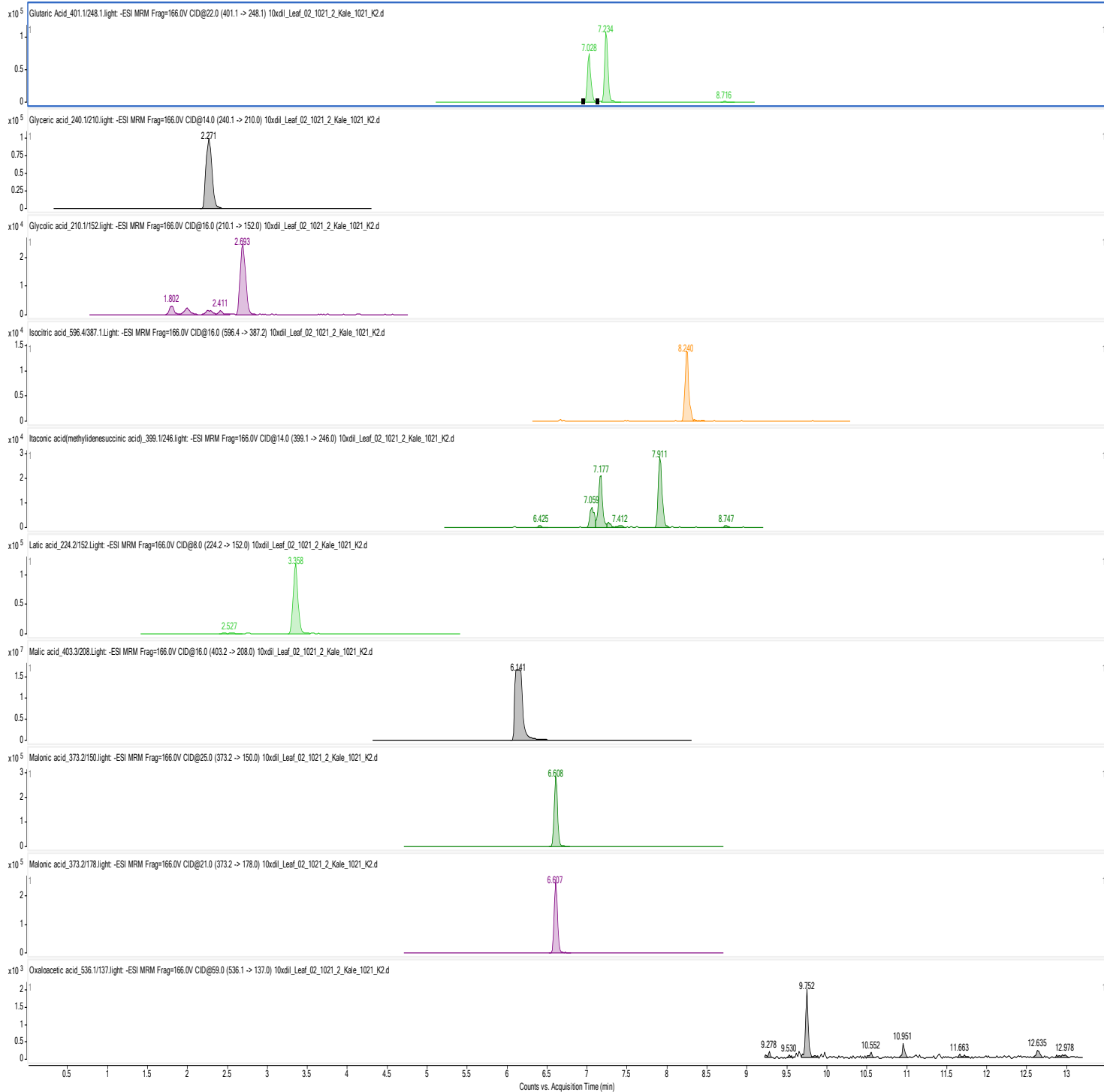
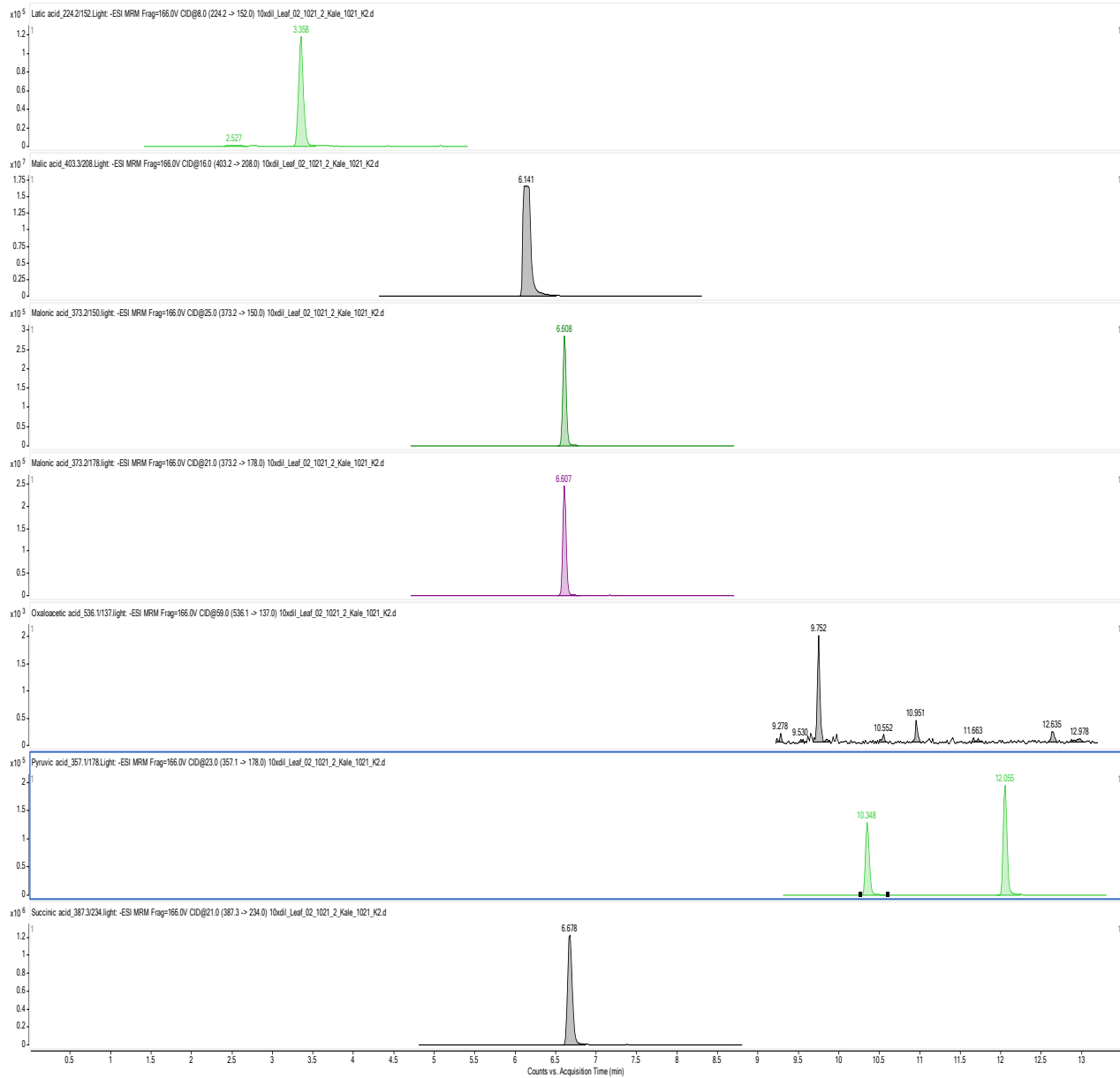


Figure S1. Chromatograms for all identified metabolites of CCM routes. The sections (1-3) show detection of CCM metabolites. The compound names and the ion transition of each compound are shown on the extracted ion chromatograms (XICs)

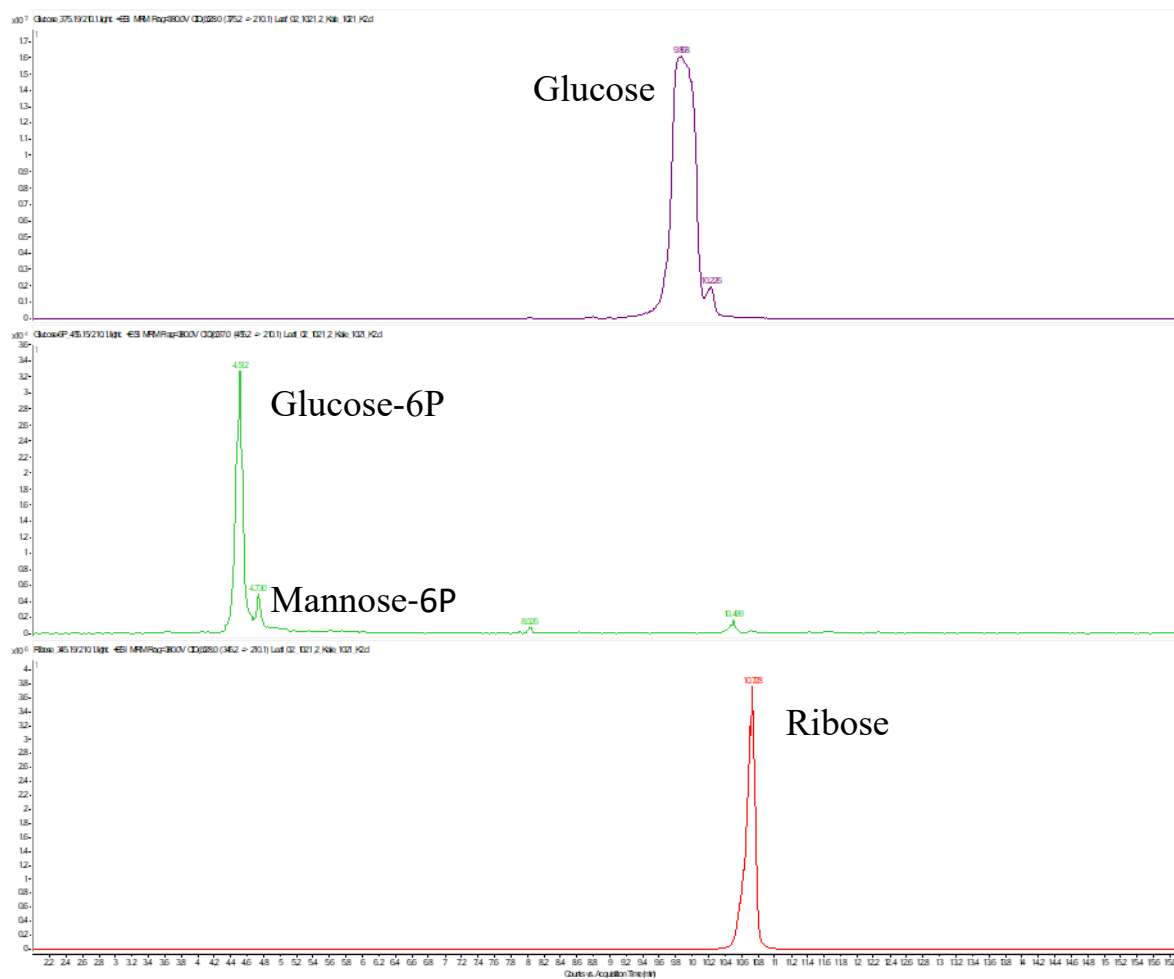
1. TCA cycle



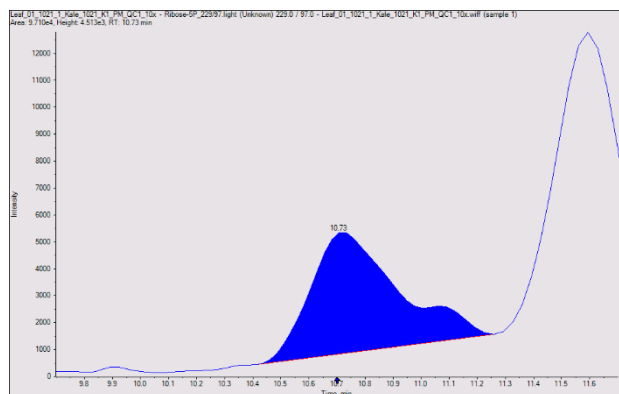




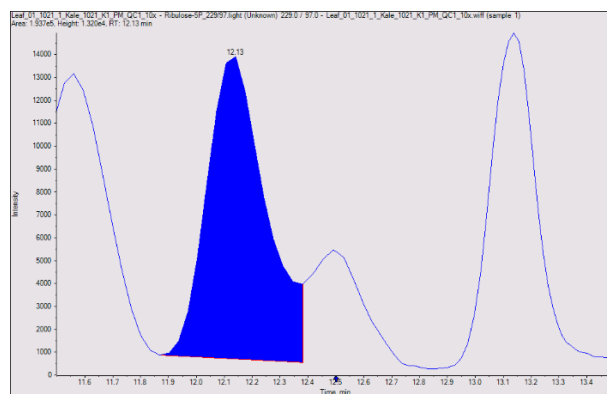
2. Sugars and selected sugar phosphates



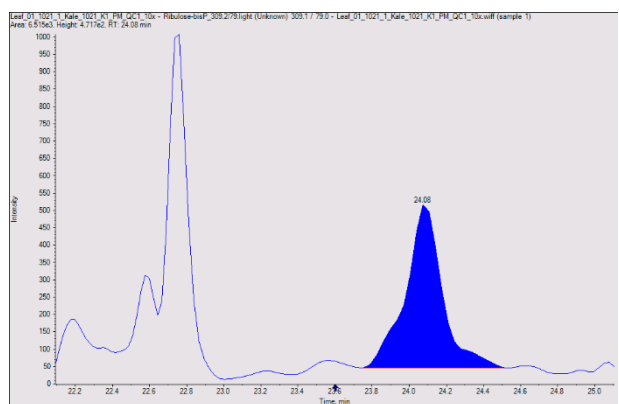
3. Phosphometabolites



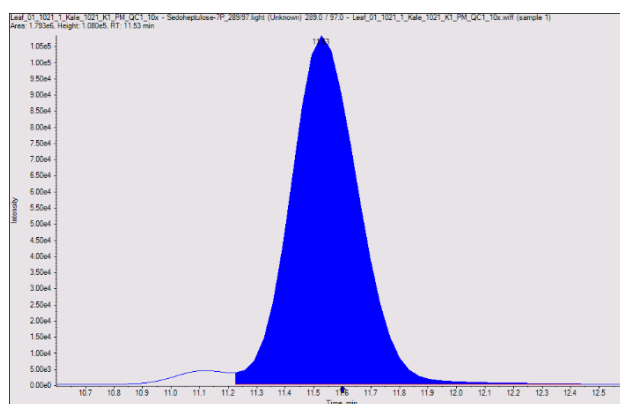
Ribulose-5P



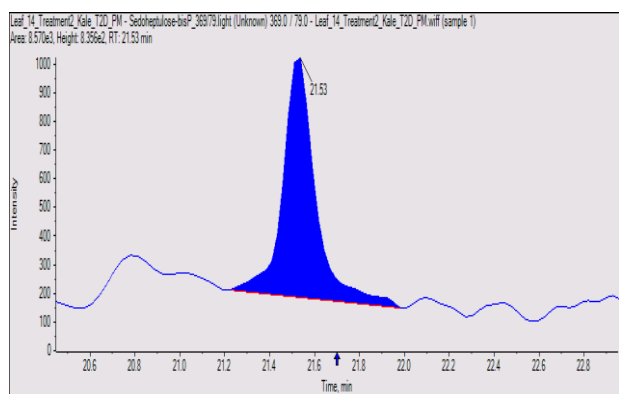
Ribulose-5P



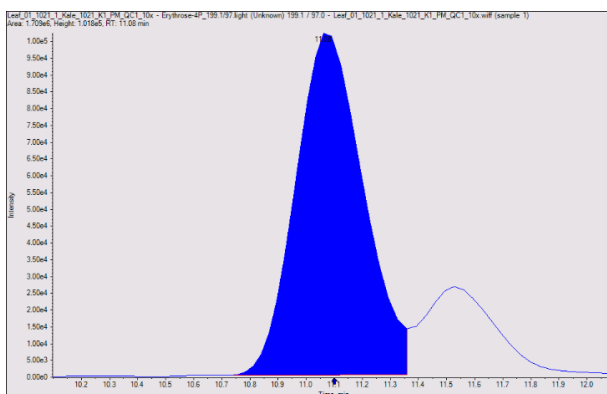
Ribulose-bisP



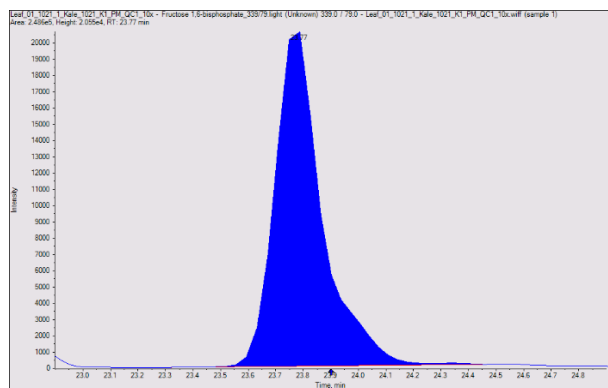
Sedoheptulose-7P



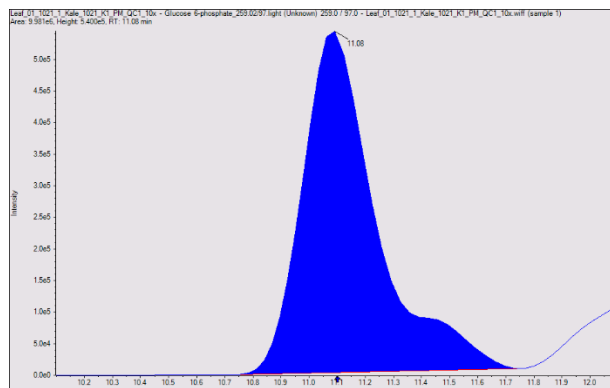
Sedoheptulose-1,7-bisP



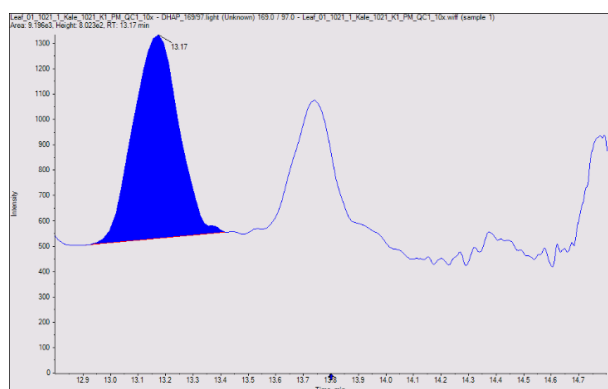
Erythrose-4P



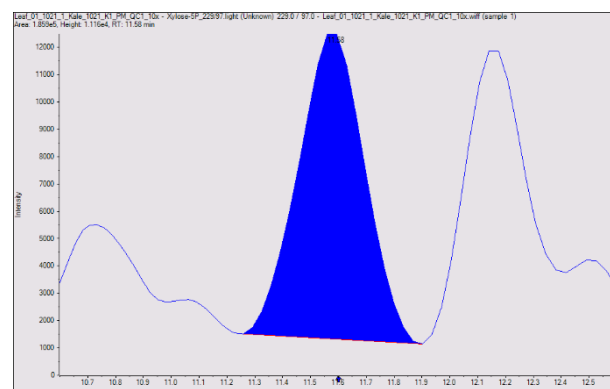
Fructose-1,6-bisP



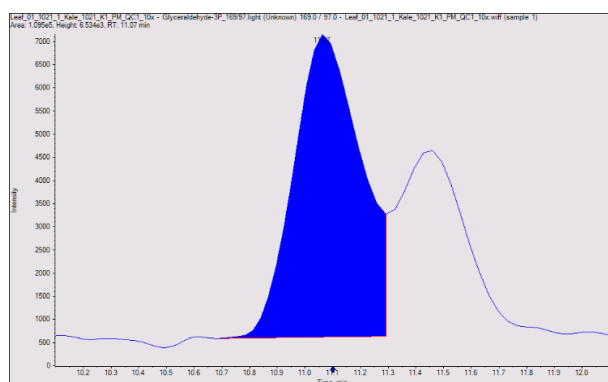
Fructose-6P



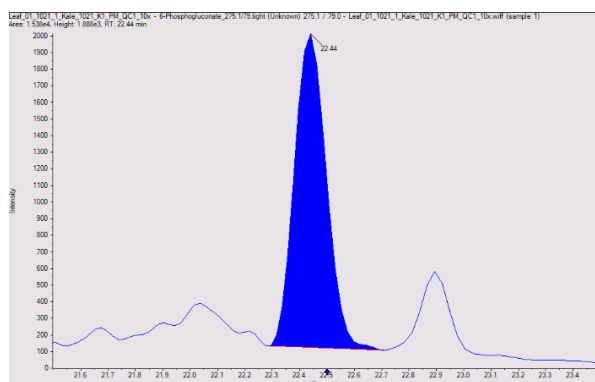
DHAP



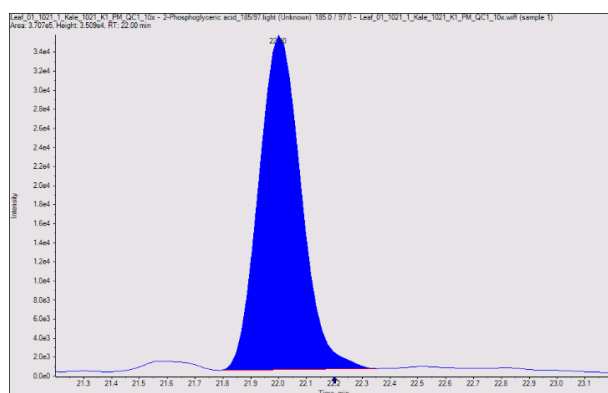
Xylose-5P



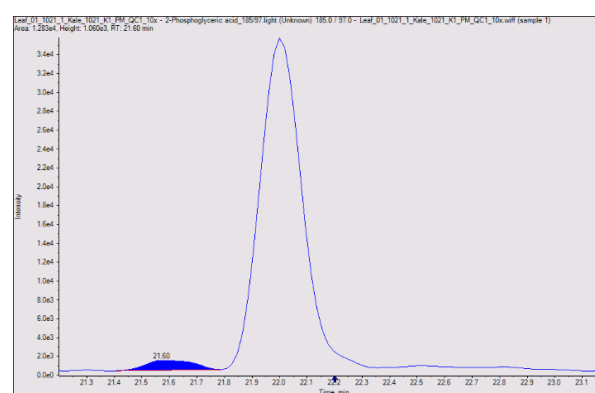
Glyceraldehyde-3P



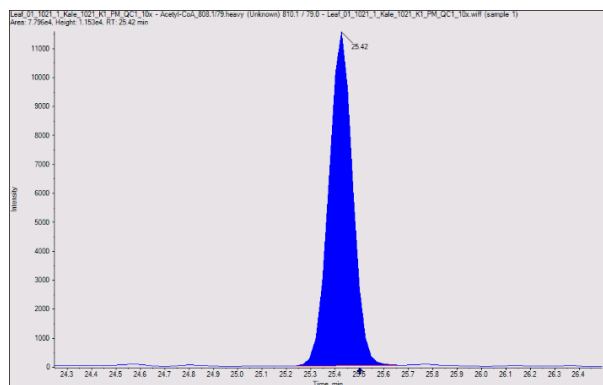
6-Phosphogluconate



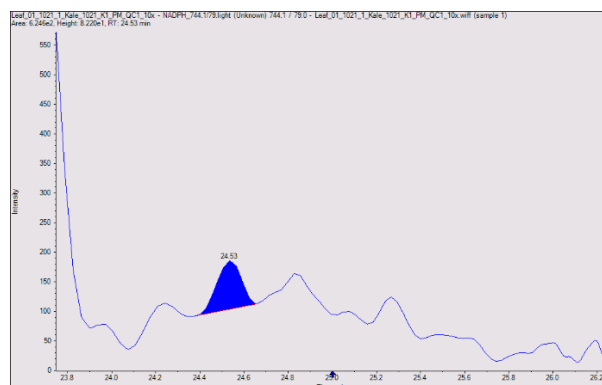
3-Phosphoglyceric acid



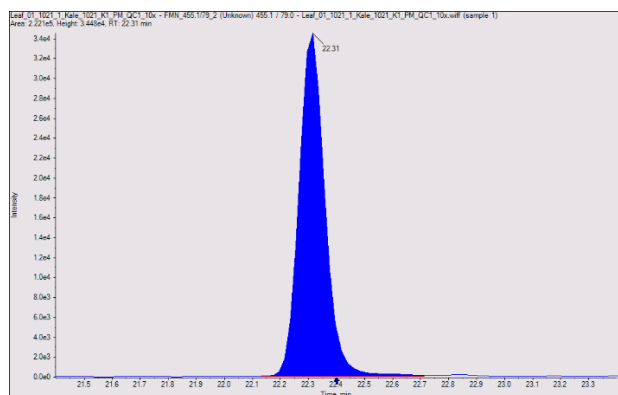
2-Phosphoglyceric acid



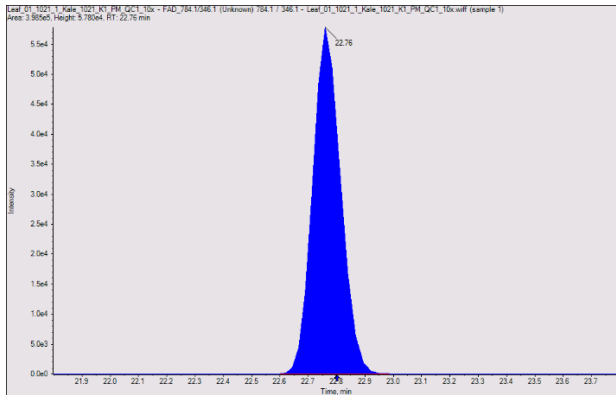
Acetyl-CoA



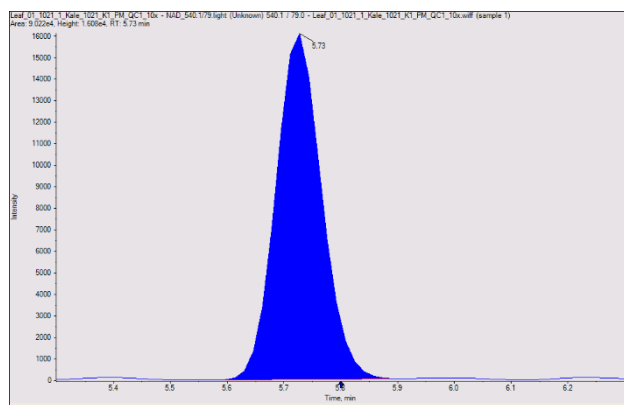
NADPH



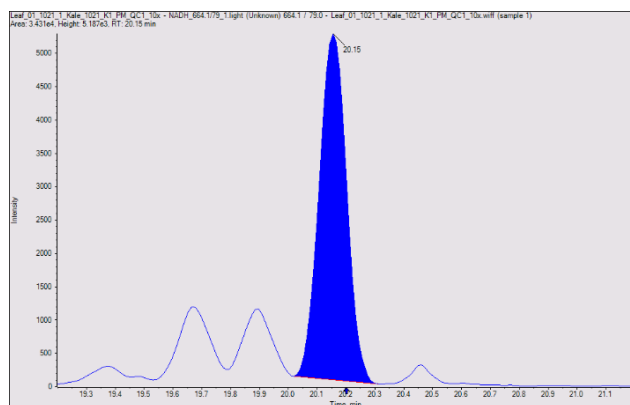
FMN



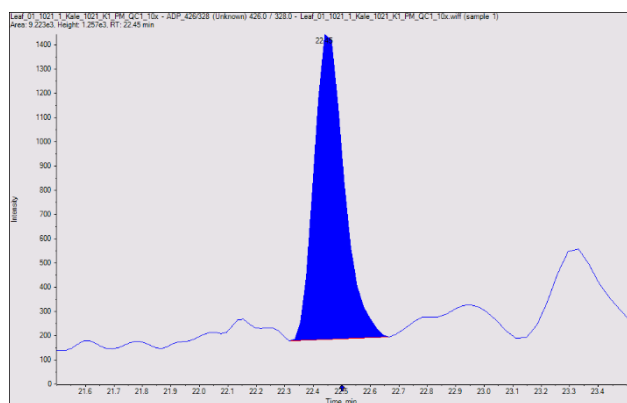
FAD



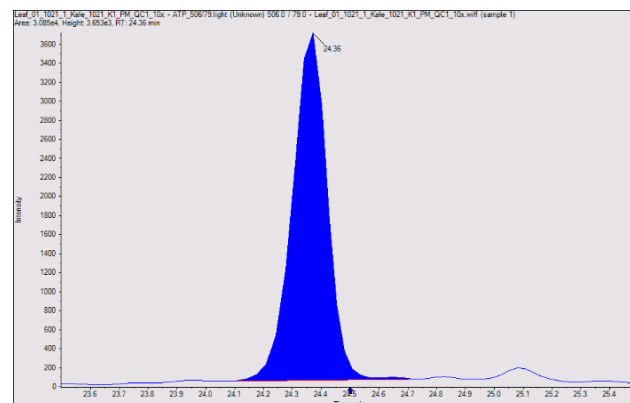
NAD



NADH



ADP



ATP

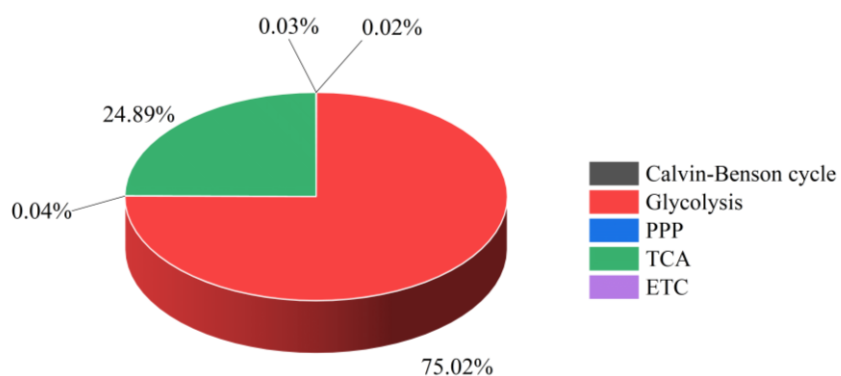


Figure S2. Classification of metabolites involved in CCM route (Calvin–Benson cycle, glycolysis, pentose phosphate pathway (PPP), tricarboxylic acid (TCA) cycle and electron transport chain (ETC)) in leaves of tomato ‘Scotia’ seedlings treated with pyroligneous acid (PA) under aluminum (Al) stress.