

#### HILIC (1)

Instrument Name: Waters Xevo-TQ-S

Instrument Type: Triple quadrupole

MS Type: ESI

Ion Mode: Positive

MS acquisition Comments: The selected reaction monitoring (SRM) transitions were monitored over a 5 to 10 minute window around the retention time. For most metabolites, two SRM transitions were monitored, one for quantification and an additional for compound confirmation. Scheduling was set up to ensure at least 12 data points per peak were collected.

Data processing Comments: Data was processed as in Boysen and Heal et al. 2018. Analytical Chemistry.

Software/procedures used for feature assignments: Peaks were integrated using Skyline. Data was processed using quality control, and best-matched internal standard normalization.

MS parameters were as follows: capillary voltage of 0.5 kV, source temperature of 130 °C, cone gas flow at 150 L/h and desolvation gas flow at 1000 L/h, Desolvation temperature was 500 °C

#### HILIC (2)

Instrument Name: Waters Xevo-TQ-S

Instrument Type: Triple quadrupole

MS Type: ESI

Ion Mode: Negative

MS acquisition Comments: The selected reaction monitoring (SRM) transitions were monitored over a 5 to 10 minute window around the retention time. For most metabolites, two SRM transitions were monitored, one for quantification and an additional for compound confirmation. Scheduling was set up to ensure at least 12 data points per peak were collected.

Data processing Comments: Data was processed as in Boysen and Heal et al. 2018. Analytical Chemistry.

Software/procedures used for feature assignments: Peaks were integrated using Skyline. Data was processed using quality control, and best-matched internal standard normalization.

MS parameters were as follows: capillary voltage of 1.0 kV, source temperature of 130 °C, cone gas flow at 150 L/h and desolvation gas flow at 1000 L/h, Desolvation temperature was 500 °C

#### HILIC (3)

Instrument Name: Thermo Q Exactive HF hybrid Orbitrap

Instrument Type: Orbitrap

MS Type: ESI

Ion Mode: Positive

MS acquisition Comments: Polarity switching was used with a scan range of 60 to 900 m/z and a resolution of 60,000.

A DDA method was used with a scan range of 60 to 900 m/z.

Data processing Comments: Data was processed as in Boysen and Heal et al. 2018. Analytical Chemistry.

Software/procedures used for feature assignments: Peaks were integrated using Skyline. Data was processed using quality control, and best-matched internal standard normalization.

MS parameters were as follows: capillary temperature was 320 °C, the H-ESI spray voltage was 3.3 kV, and the auxiliary gas heater temperature was 100 °C. The

S-lens RF level was 65. Sheath gas, auxiliary gas, and sweep gas flow rates were maintained at 16, 3, and 1, respectively.

#### HILIC (4)

Instrument Name: Thermo Q Exactive HF hybrid Orbitrap

Instrument Type: Orbitrap

MS Type: ESI

Ion Mode: Negative

MS acquisition Comments: Polarity switching was used with a scan range of 60 to 900 m/z and a resolution of 60,000.

A DDA method was used with a scan range of 60 to 900 m/z.

Data processing Comments: Data was processed as in Boysen and Heal et al. 2018. Analytical Chemistry.

Software/procedures used for feature assignments: Peaks were integrated using Skyline. Data was processed using quality control, and best-matched internal standard normalization.

MS parameters were as follows: capillary temperature was 320 °C, the H-ESI spray voltage was 3.3 kV, and the auxiliary gas heater temperature was 100 °C. The

S-lens RF level was 65. Sheath gas, auxiliary gas, and sweep gas flow rates were maintained at 16, 3, and 1, respectively.