Condition of QqTOF

Imapct II

Capillary-liquid chromatography mass spectrometry (Cap-LC-MS) was performed on a Bruker Impact II Quadrupole Time-of-Flight (QTOF) mass spectrometer equipped with an Apollo II ion funnel ESI source (Bruker) operated in **positive ion mode**.

The LC system was an UltiMate™ 3000 RSLCnano system from Thermo Scientific. The mobile **phase A was water containing 100mM ammonium formate** and the mobile **phase B was acetonitrile with 0.1% formic acid**. 5 uL of each sample was first injected on to the m-Precolumn Cartridge (Thermo Scientific,), and washed with mobile phase A. The injector port was switched to inject and the sample was eluted off of the trap onto the column. A **300um x150mm, 2u, 100A, Acclaim PepMap RSLC (Thermo Scientific)** was used for chromatographic separations. Proteins/RNA were eluted directly off the column into the LTQ system using a gradient of 2-80%B over 30 minutes, with a flow rate of 5 ul/min. The total run time was 60 minutes.

The MS was acquired according to standard conditions in the lab. Briefly, the instrument was calibrated using Tune mix purchased from Agilent. The Apollo ESI source was operated at with a spray voltage of 4.5 kV, a capillary temperature of 200oC, and dry gas at 4.0 l/min. A full scan was recorded between 150 – 3000 Da at a scan rate of 1 Hz.