

**Figure S2** Detection of TiC overlapping map by QC sample mass spectrometry. (A) QC MS tic overlap -N; (B) QC MS tic overlap -P. QC sample mass spectrometry detection of the total ion flow diagram (TIC diagram) overlay map. The results showed that the peak intensity and retention time were consistent, which indicated that the signal stability was good when the same sample was detected at different time. The high stability of the instrument provides an important guarantee for the repeatability and reliability of the data.