

## **Supplemental File 2. Purines and pyrimidines in urine.**

50  $\mu$ l urine was pipetted into a small tube and diluted to obtain a creatinine concentration of  $<2$  mmol/l. To 20  $\mu$ l internal standard solution (containing  $^{15}\text{N}_2$ -uracil,  $^{15}\text{N}_2$ -thymine,  $^{13}\text{C}$ -adenine,  $^{15}\text{N}_2$ -orotic acid,  $^{15}\text{N}_4$ -hypoxanthine,  $^{13}\text{C}_5$ -thymidine,  $^{13}\text{C}_5$ -uridine,  $^{13}\text{C}_5$ -adenosine,  $^{15}\text{N}_2$ -Xanthine,  $^{15}\text{N}_5$ -2'deoxyguanosine and  $^{15}\text{N}_4$ -Inosine) 20  $\mu$ l urine was added. Then, 133  $\mu$ l ammonium formiate 50 mM was added and samples were vortexed. Samples were transferred to a 96 well plate and 5  $\mu$ l. was injected into the liquid chromatography mass spectrometry system (UPLC columc: Waters Acquity HSS T3 (1.8 $\mu$ m, 2.1x50mm.) Water Xevo TQ mass spectrometer). Compounds were qualified by the use of calibration curves and the labeled internal standards and expressed per creatinine.