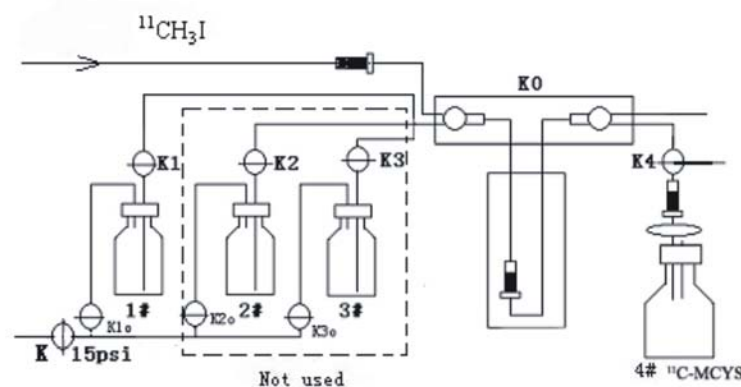


SUPPLEMENTAL FIGURE 1.

Diagram of the fully automated system for the synthesis of ^{11}C -MCYS.



SUPPLEMENTAL FIGURE 2.

Images in tumor-bearing mice (A, B, C) and inflammatory mice (D, E, F) obtained with ^{18}F -FDG, ^{11}C -MET and ^{11}C -MCYS PET imaging, respectively. The five images in each picture (A-F) were CT (upper left), transaxial (lower left), sagittal (middle left), coronal (middle right) and maximum intensity projection (MIP, right) PET images, respectively. High ^{18}F -FDG and ^{11}C -MCYS uptake of tumor (A and C) and relatively low ^{11}C -MET uptake of tumor (B) were observed, and tumor to muscle ratio was highest for ^{11}C -MCYS uptake. Similarly, high ^{18}F -FDG and ^{11}C -MET uptake of inflammatory tissue (D and E) was also observed, however, low ^{11}C -MCYS uptake of inflammatory tissue (F) was observed.