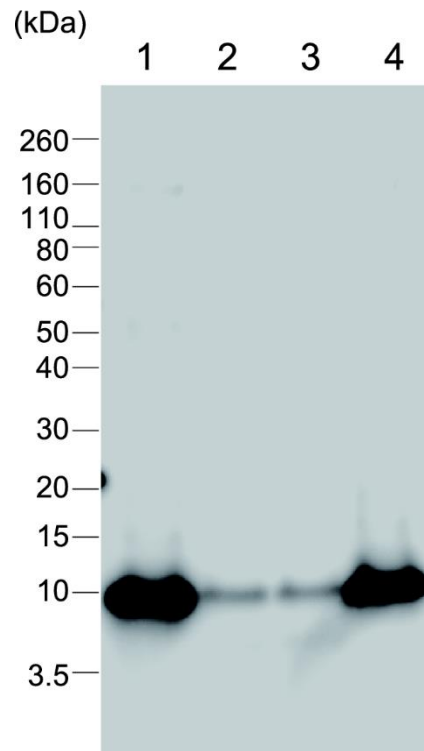


Supplemental Figure 1. Semi-preparative and analytical HPLC charts of *trans*-4-¹⁸F-fluoro-L-proline.

From calculating liner-regression of *trans*-4-fluoroproline standard, the detection limit of *trans*-4-fluoro-L-proline was 4.92 nmol, providing 74 MBq/ μ mol as a lower limit on specific activity. However, this seems to be not a real specific activity of *trans*-4-¹⁸F-fluoro-L-proline because average specific activity of ¹⁸F-ligands with UV absorption was at least than 37 GBq/ μ mol at the end of the synthesis when the same fluorination methods were used at CYRIC. Future developments of analysis methods of amino acids with low UV absorbance are required to determine a real specific activity.



Supplemental Figure 2. IL-8 synthesis using the PURExpress[®] system and fluorinated amino acids. Western blot analysis of IL-8. Lane 1: PURExpress with Pro and IL-8 DNA template. Lane 2: PURExpress with O-fluoromethyl-L-tyrosine and IL-8 DNA template. Lane 3: PURExpress with O-fluoroethyl-L-tyrosine and IL-8 DNA template. Lane 4: PURExpress with fluoro-L-proline and IL-8 DNA template.