Supplementary material

Al[^{18}F]NOTA-T140 Peptide for Noninvasive Visualization of CXCR4 Expression

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Xuefeng Yan[1,2,3], Gang Niu[2], Zhe Wang[2], Xiangyu Yang[2], Dale O. Kiesewetter[2], Orit Jacobson[2*], Baozhong Shen [1,3*], and Xiaoyuan Chen [2*]

[1]*Department of Radiology, the Fourth Hospital of Harbin Medical University, Harbin, Heilongjiang, China*

[2]*Laboratory of Molecular Imaging and Nanomedicine (LOMIN), National Institute of Biomedical Imaging and Bioengineering (NIBIB), National Institutes of Health (NIH), Bethesda, Maryland*

[3]*Molecular Imaging Center of Harbin Medical University, Harbin, Heilongjiang, China*

* Correspondence: Orit Jacobson (orit.jacobsonweiss@nih.gov); Baozhong Shen (shenbzh@vip.sina.com); Xiaoyuan Chen (shawn.chen@nih.gov)

Materials and Methods

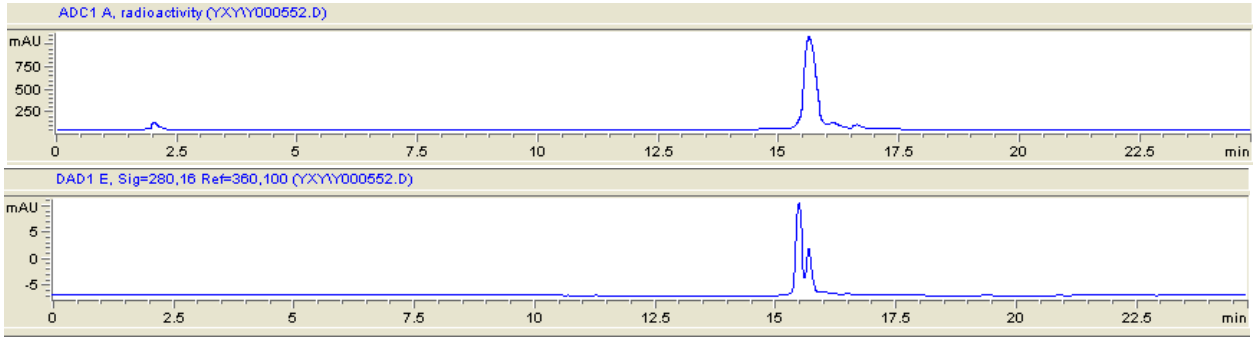
Flow Cytometry.

Flow cytometry was performed on Accuri C6 flow cytometer using C Flow Plus software (BD, Ann Arbor, MI), and the data was analyzed with FlowJo (Tree Star, Ashland, OR, USA). The CXCR4 expression levels were confirmed by staining using PE-conjugated antihuman

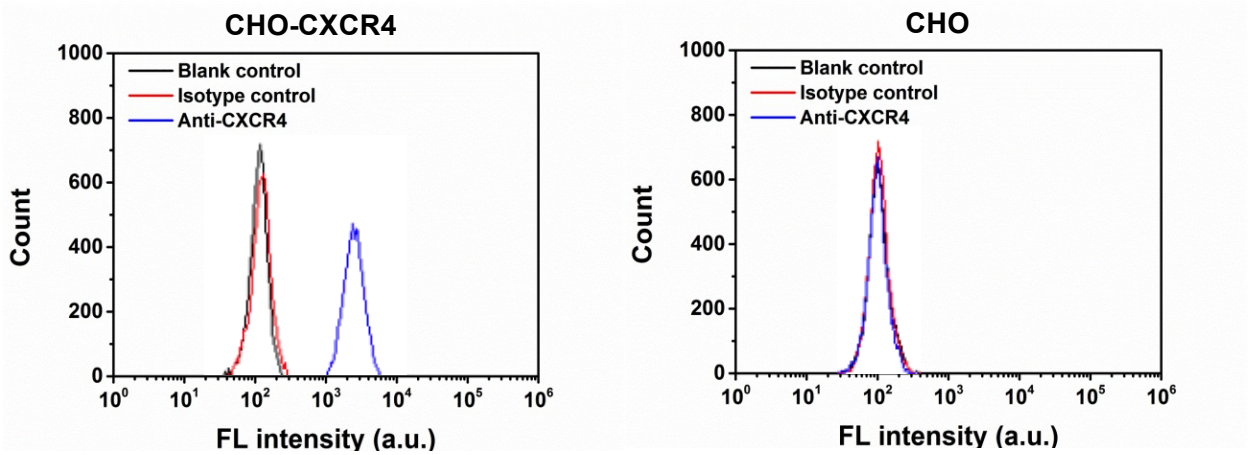
CXCR4 or matched isotype control (R&D, Minneapolis, MN, USA), while unstained cells were used as blank control.

Stability of Al[^{18}F]-NOTA-T140 in mouse serum

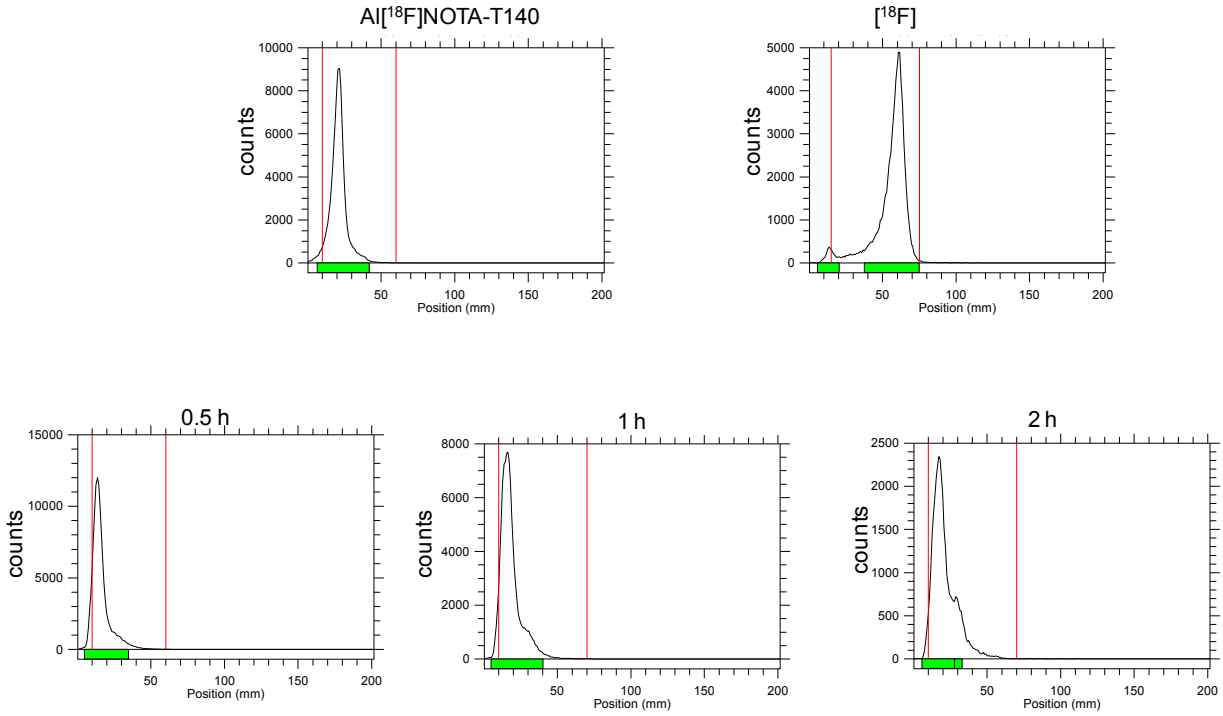
Al[^{18}F]NOTA-T140 (25 µL, 11MBq) was incubated with 500 µL mouse serum at 37 °C for 0.5, 1, and 2h. At each time point, an aliquot was taken and placed on iTLC plate. 0.1 mol/L citric acid (pH 5) was used as a developing solvent.



Supplemental Figure S1. Representative HPLC chromatogram of Al[^{18}F]NOTA-T140 crude reaction (radioactivity – upper panel, UV@280nm – lower panel).



Supplemental Figure S2. CXCR4 expression of CHO-CXCR4 and CHO cell lines analyzed by flow cytometry.



Supplemental Figure S3. Upper row: radio-TLC measurement of Al[^{18}F]NOTA-T140 (left, rf 0.05) and free fluoride-18 (right, rf = 0.87). Lower row: radio-TLC measurement achieved from stability of Al[^{18}F]NOTA-T140 in mouse serum for 0.5, 1 and 2 h at 37 °C.