

Molecular imaging of T cell co-regulator factor B7-H3 with ⁸⁹Zr-DS-5573a

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Supplementary Figures

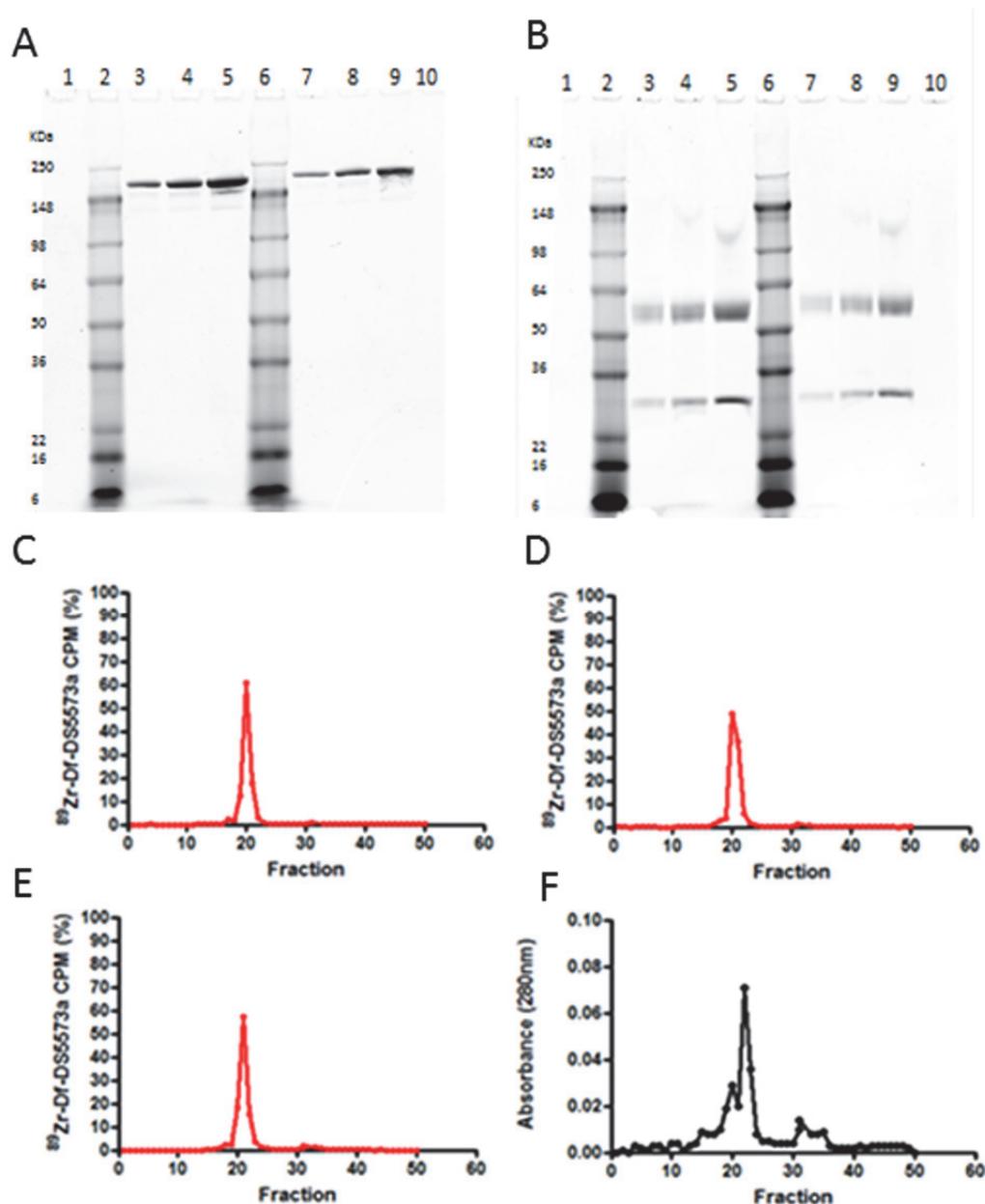


Figure S1 – Quality control of chelation and radiolabeling of ^{89}Zr -DS-5573a. SDS-PAGE analysis of native DS-5573a and Df-Bz-NCS-DS-5573a under non-reduced (A) and reduced conditions (B). The Df-Bz-NCS-DS-5573a was prepared without loss of structural integrity. Superdex 200 HR 10/30 Column Size Exclusion Chromatography (SEC) Analysis of ^{89}Zr -Df-Bz-NCS-DS-5573a integrity during incubation for 7 days in human serum at 37°C. The radiochromatograms (red) show one single peak at day 0 (C), day 3 (D) and day 7 (E). The UV chromatograms (black) show two peaks representing thyroglobulin (700 kDa, fraction 20) and human serum albumin (66 kDa, fraction 22).

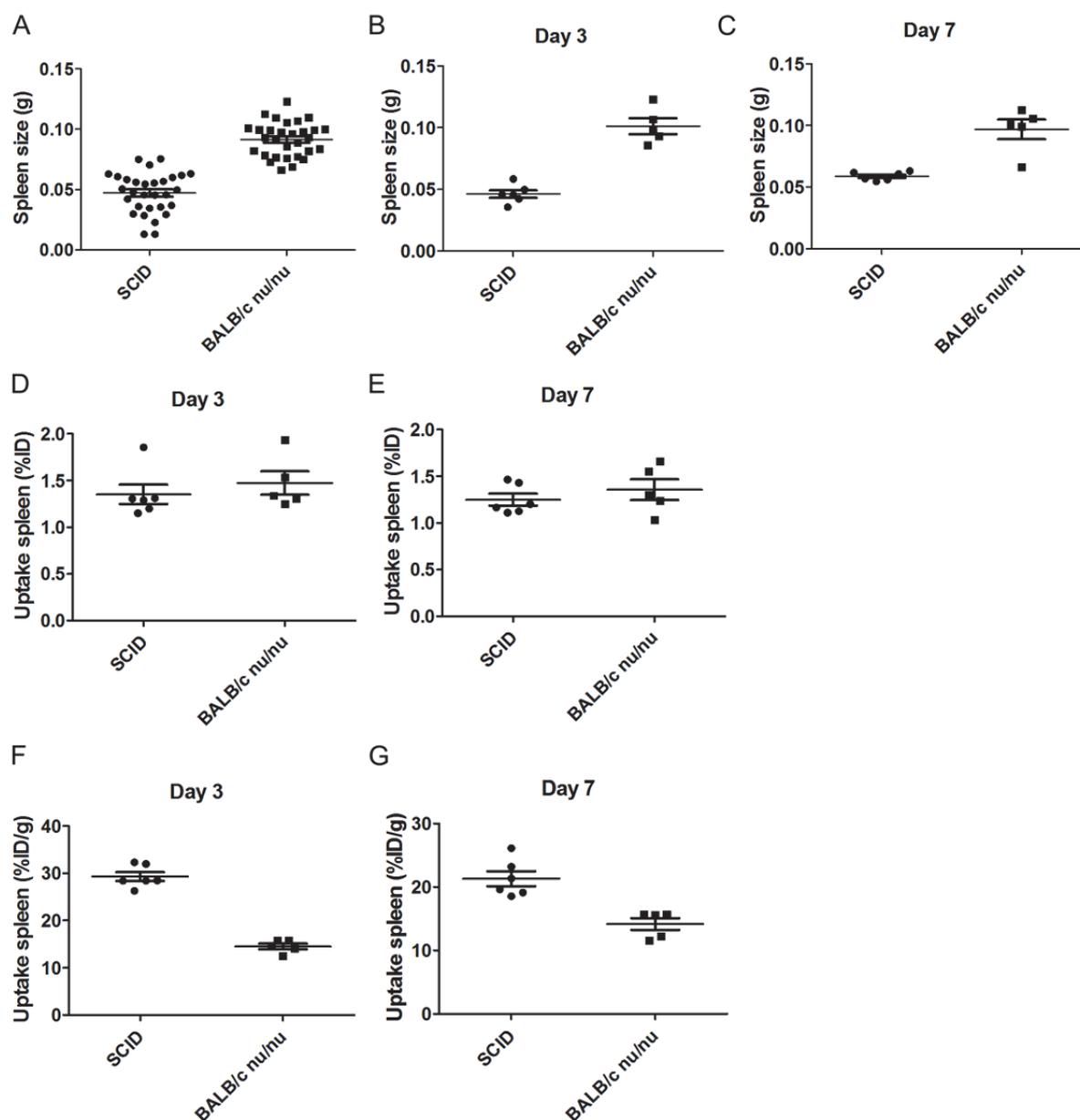


Figure S2 – Influence of spleen size in different mouse strains on measured radioactivity concentration of ^{89}Zr -DS-5573a in the spleen. (A) Average weight of spleen from SCID mice versus BALB/c nu/nu mice ($n = 30$). **(B-C)** Spleen sizes measured in SCID mice ($n = 6$) and BALB/c nu/nu mice ($n = 5$) used for biodistribution study on day 3 post injection **(B)** and day 7 post injection **(C)**. **(D-E)** Radioactivity measured in the spleen at day 3 post injection in BALB/c nu/nu mice versus SCID mice presented as percentage injected dose **(D)** and percentage injected dose per gram tissue **(E)**. **(F-G)** Radioactivity measured in the spleen at day 7 post injection in BALB/c nu/nu mice versus SCID mice presented as percentage injected dose **(F)** and percentage injected dose per gram tissue **(G)**.

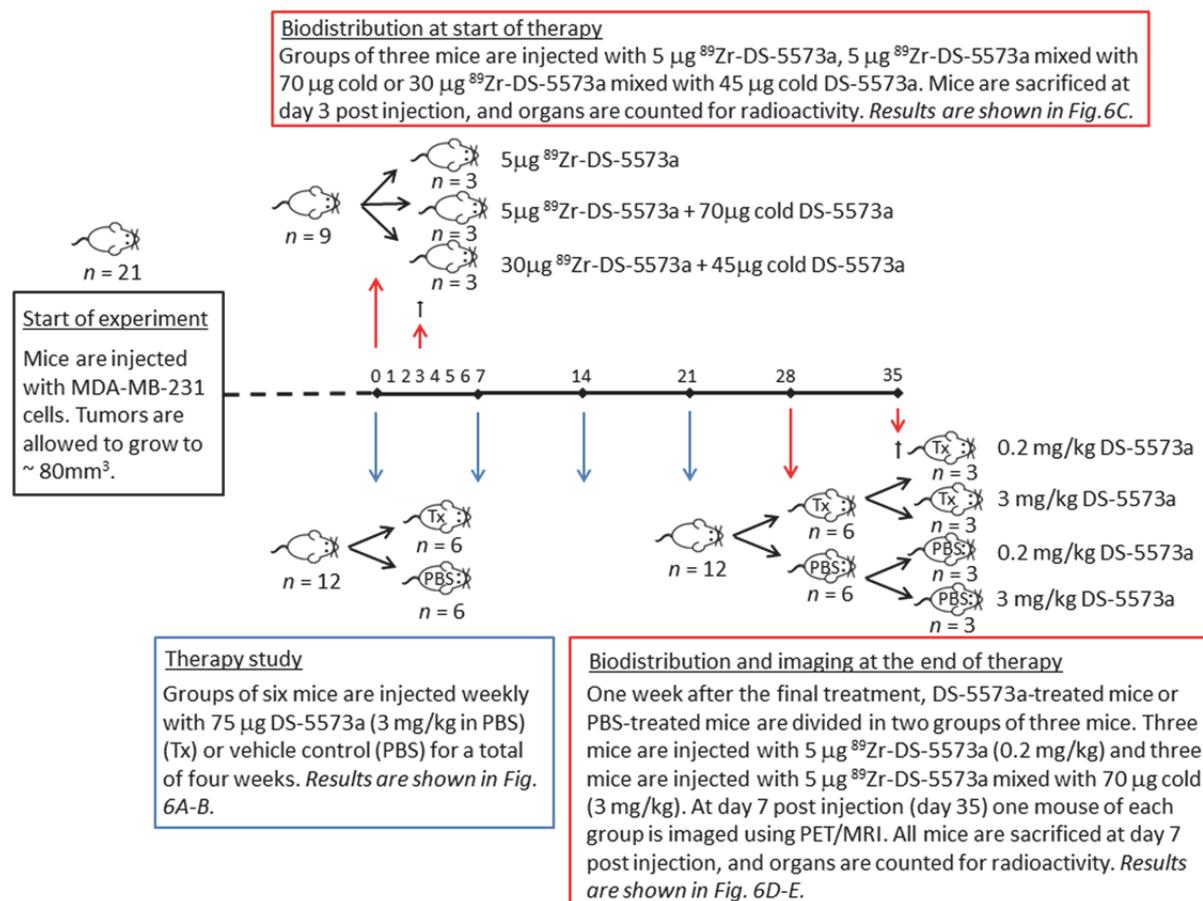


Figure S3 – Schematic diagram of treatments to generate the combined imaging/therapy data presented in Figure 6. Big blue arrow, therapeutic injection; big red arrow, injection $^{89}\text{Zr-Df-Bz-NCS-DS-5573a}$; small red arrow, endpoint.

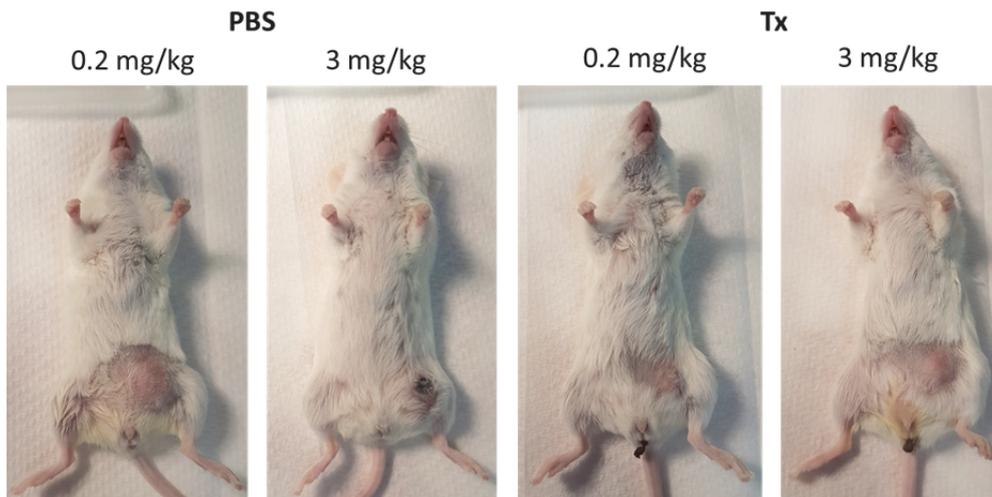


Figure S4 – Mice used to generate Figure 6E demonstrating the presence of a blood crust in the PBS-treated mouse injected with ^{89}Zr - Df-Bz-NCS-DS-5573 at a total dose of 3 mg/kg.