

Supplementary Figure S3: Conversion of ATBTA-Eu³⁺ to DTBTA-Eu³⁺ was verified by ESI-MS. ATBTA-Eu³⁺ (left, 861.5 (M – H⁺)⁻, 839.5 (M – Na⁺)⁻) was chemically converted to the activated DTBTA-Eu³⁺ (right, 1008.3 (M – H⁺)⁻, 986.3 (M – Na⁺)⁻, 968.3 (M – H₂O)⁻), which was used to label LST and LST_CPHPs for biodistribution experiments. The mass spectrum on the right confirms complete conversion of the label and was chosen as a representative sample for each batch of activated DTBTA-Eu³⁺ DTBTA-Eu³⁺ produced for this study.