Electronic Supplementary Material (ESI) for Dalton Transactions.

Supporting Information

Development, characterisation and *in vitro* evaluation of lanthanide-based FPR2/ALX-targeted imaging probes

Tamara Boltersdorf, Junaid Ansari, Elena Y. Senchenkova, Lijun Jiang, Michael Coogan, Felicity N. E. Gavins, Nicholas J. Long

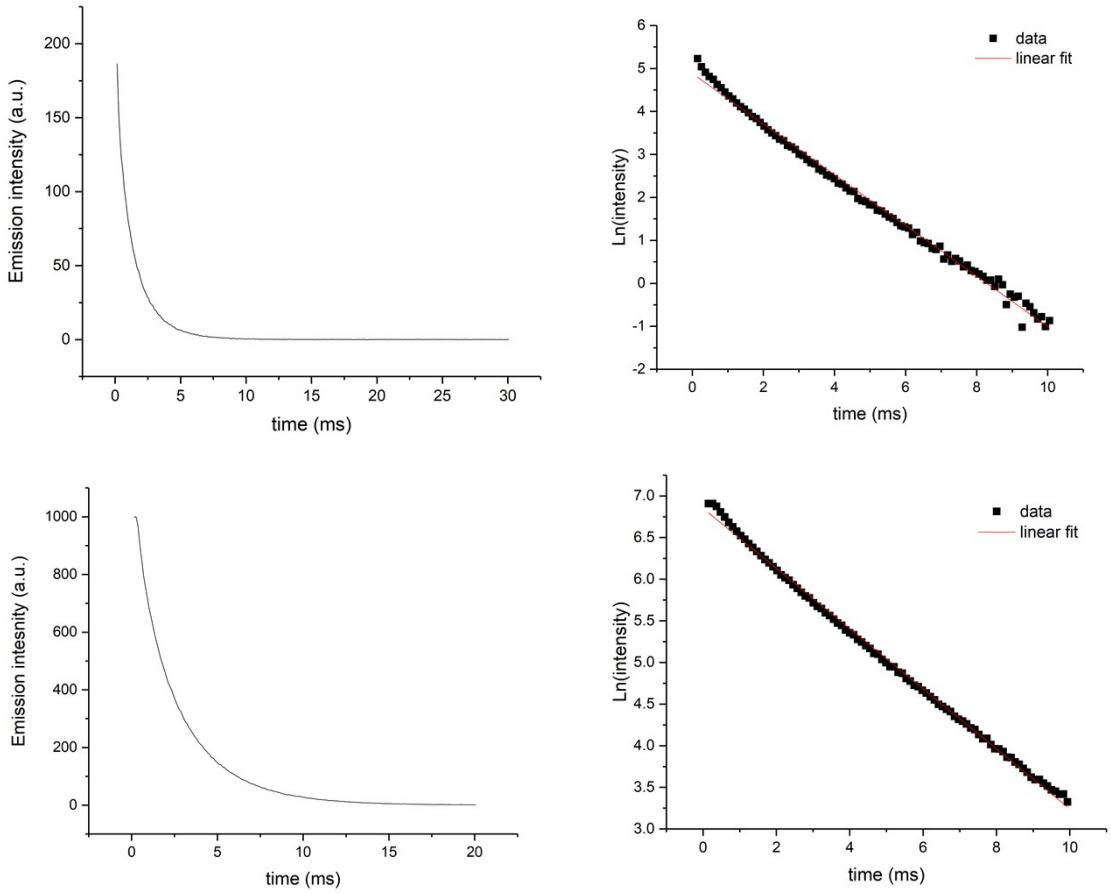


***Figure S1**: Luminescence lifetime measurements of Tb.**14** in H_2O (above) and D_2O (below), depicting the decay curves (left) and a simple, single-exponential fit by plotting natural logarithm of the intensity against time to obtain τ values from the reciprocal of the slope (right).*

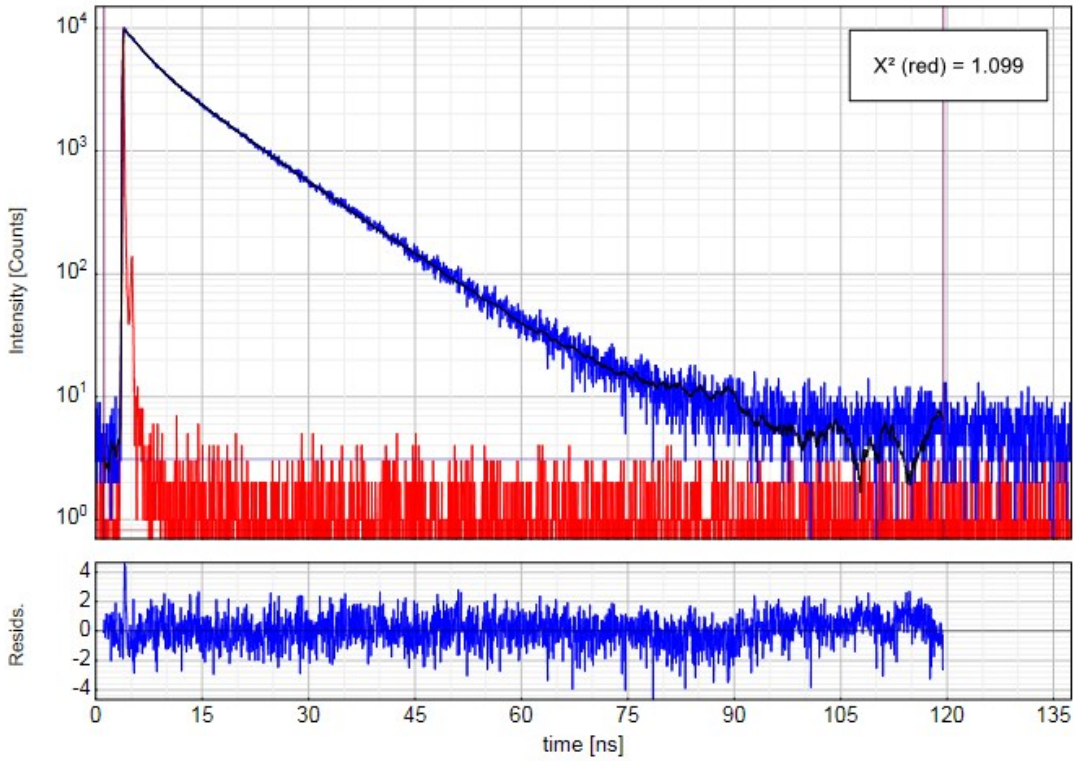


Figure S2: *Short-lived luminescence response of compound Tb.**14** (blue), IRF (red) and fitting of the curve to two exponential decays in FluoFit software (black). Below, residuals are shown. By this method, short lived emission lifetimes for Tb.**14** were determined as* τ_1 *= 10.61 ns ± 0.12 ns (85.3 % fractional intensity) and* τ_2 *= 2.87 ns ± 0.21 ns (14.8 % fractional intensity).*

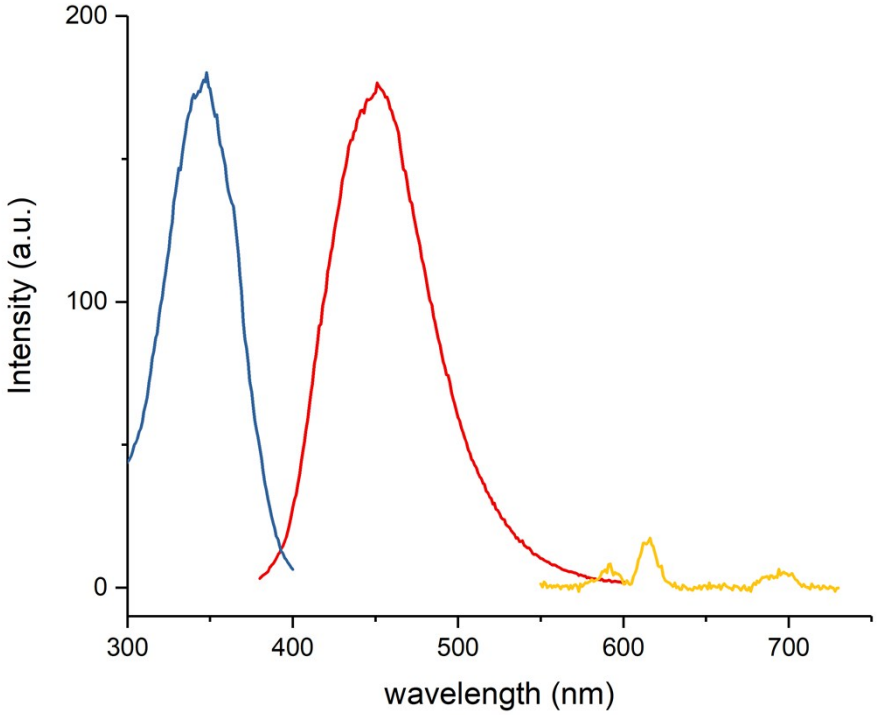


Figure S3: *Steady state excitation (blue, λ_{em} = 450 nm), emission (red, λ_{exc} = 350 nm) and time-gated emission spectra (yellow, 0.1 ms delay, λ_{exc} = 350 nm) of Eu.**14**.*

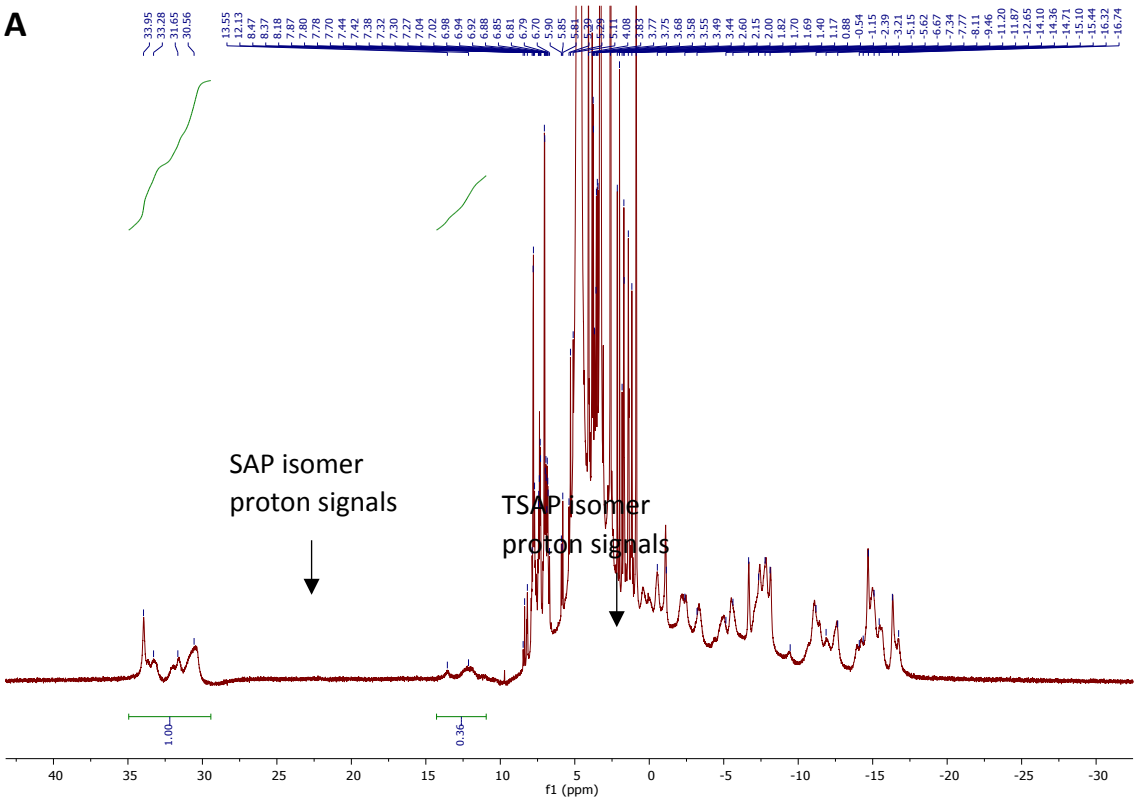
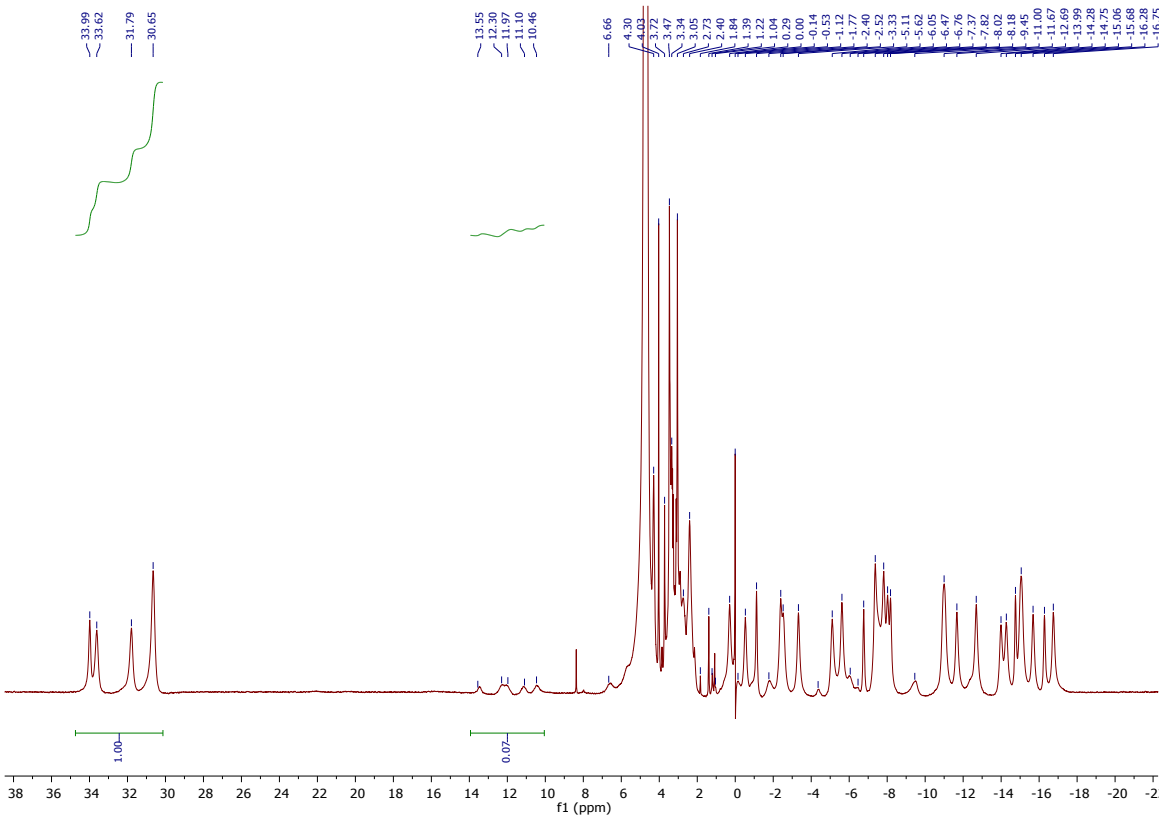


***Figure S4**: ^{1}H-NMR spectra of compound Eu.**14** (**A**) and Eu.**13** (**B**), run in D_2O at 500 MHz and 298 K, displaying typical resonances for the pseudo-axial protons in the SAP isomer (shift range 30 - 35 ppm) and the less intense TSAP isomer (shift range 10 - 14 ppm).*



X-ray crystallography list of bond lengths [Å] and angles [°] for 6

C(1)-O(1)	1.228(2)
C(1)-N(2)	1.377(2)
C(1)-C(10)	1.468(3)
N(2)-N(11)	1.390(2)
N(2)-C(3)	1.496(3)
N(2)-C(3')	1.502(7)
C(3)-N(4)	1.395(3)
C(3)-C(24)	1.509(3)
C(3')-N(4)	1.414(7)
C(3')-C(24')	1.506(8)
N(4)-C(5)	1.378(2)
C(5)-C(6)	1.394(3)
C(5)-C(10)	1.408(3)
C(6)-C(7)	1.375(3)
C(7)-C(8)	1.389(3)
C(8)-C(9)	1.374(3)
C(9)-C(10)	1.396(3)
N(11)-C(12)	1.366(2)
C(12)-O(12)	1.219(2)
C(12)-C(13)	1.486(3)
C(13)-C(18)	1.385(3)
C(13)-C(14)	1.393(3)
C(14)-C(15)	1.370(3)
C(15)-C(16)	1.391(3)
C(16)-O(19)	1.365(2)
C(16)-C(17)	1.382(3)
C(17)-C(18)	1.388(3)
O(19)-C(20)	1.423(3)
C(20)-C(21)	1.521(3)
C(21)-C(22)	1.499(3)
C(22)-C(23)	1.522(3)
C(24)-C(25)	1.3900
C(24)-C(29)	1.3900
C(25)-C(26)	1.3900

C(26)-C(27)	1.3900
C(27)-O(30)	1.380(4)
C(27)-C(28)	1.3900
C(28)-C(29)	1.3900
O(30)-C(31)	1.432(5)
C(24')-C(25')	1.3900
C(24')-C(29')	1.3900
C(25')-C(26')	1.3900
C(26')-C(27')	1.3900
C(27')-O(30')	1.354(12)
C(27')-C(28')	1.3900
C(28')-C(29')	1.3900
O(30')-C(31')	1.442(13)
O(1)-C(1)-N(2)	121.91(17)
O(1)-C(1)-C(10)	123.46(17)
N(2)-C(1)-C(10)	114.59(16)
C(1)-N(2)-N(11)	117.04(15)
C(1)-N(2)-C(3)	117.80(16)
N(11)-N(2)-C(3)	116.51(15)
C(1)-N(2)-C(3')	123.3(3)
N(11)-N(2)-C(3')	117.9(3)
N(4)-C(3)-N(2)	108.41(19)
N(4)-C(3)-C(24)	113.13(19)
N(2)-C(3)-C(24)	110.69(19)
N(4)-C(3')-N(2)	107.0(4)
N(4)-C(3')-C(24')	117.7(5)
N(2)-C(3')-C(24')	112.9(5)
C(5)-N(4)-C(3)	116.80(17)
C(5)-N(4)-C(3')	122.8(3)
N(4)-C(5)-C(6)	122.42(17)
N(4)-C(5)-C(10)	118.59(17)
C(6)-C(5)-C(10)	118.98(18)
C(7)-C(6)-C(5)	120.35(19)
C(6)-C(7)-C(8)	121.0(2)
C(9)-C(8)-C(7)	119.2(2)

C(8)-C(9)-C(10)	121.04(19)
C(9)-C(10)-C(5)	119.37(17)
C(9)-C(10)-C(1)	120.12(17)
C(5)-C(10)-C(1)	120.50(17)
C(12)-N(11)-N(2)	118.71(15)
O(12)-C(12)-N(11)	120.80(17)
O(12)-C(12)-C(13)	122.53(18)
N(11)-C(12)-C(13)	116.67(17)
C(18)-C(13)-C(14)	118.46(18)
C(18)-C(13)-C(12)	124.26(18)
C(14)-C(13)-C(12)	117.22(18)
C(15)-C(14)-C(13)	121.1(2)
C(14)-C(15)-C(16)	119.8(2)
O(19)-C(16)-C(17)	124.90(19)
O(19)-C(16)-C(15)	114.96(18)
C(17)-C(16)-C(15)	120.13(18)
C(16)-C(17)-C(18)	119.41(19)
C(13)-C(18)-C(17)	121.07(19)
C(16)-O(19)-C(20)	119.11(17)
O(19)-C(20)-C(21)	106.12(19)
C(22)-C(21)-C(20)	113.9(2)
C(21)-C(22)-C(23)	111.4(2)
C(25)-C(24)-C(29)	120.0
C(25)-C(24)-C(3)	119.4(2)
C(29)-C(24)-C(3)	120.6(2)
C(26)-C(25)-C(24)	120.0
C(25)-C(26)-C(27)	120.0
O(30)-C(27)-C(28)	125.8(3)
O(30)-C(27)-C(26)	114.0(3)
C(28)-C(27)-C(26)	120.0
C(27)-C(28)-C(29)	120.0
C(28)-C(29)-C(24)	120.0
C(27)-O(30)-C(31)	117.8(4)
C(25')-C(24')-C(29')	120.0
C(25')-C(24')-C(3')	122.5(6)

C(29')-C(24')-C(3')	117.3(6)
C(24')-C(25')-C(26')	120.0
C(25')-C(26')-C(27')	120.0
O(30')-C(27')-C(28')	124.6(8)
O(30')-C(27')-C(26')	115.4(8)
C(28')-C(27')-C(26')	120.0
C(27')-C(28')-C(29')	120.0
C(28')-C(29')-C(24')	120.0
C(27')-O(30')-C(31')	117.2(11)