Electronic Supplementary Information for Dalton Transactions

Electronic Supporting Information

A gadolinium(III) complex with 8-amidequinoline based ligand as copper(II) ion responsive contrast agent

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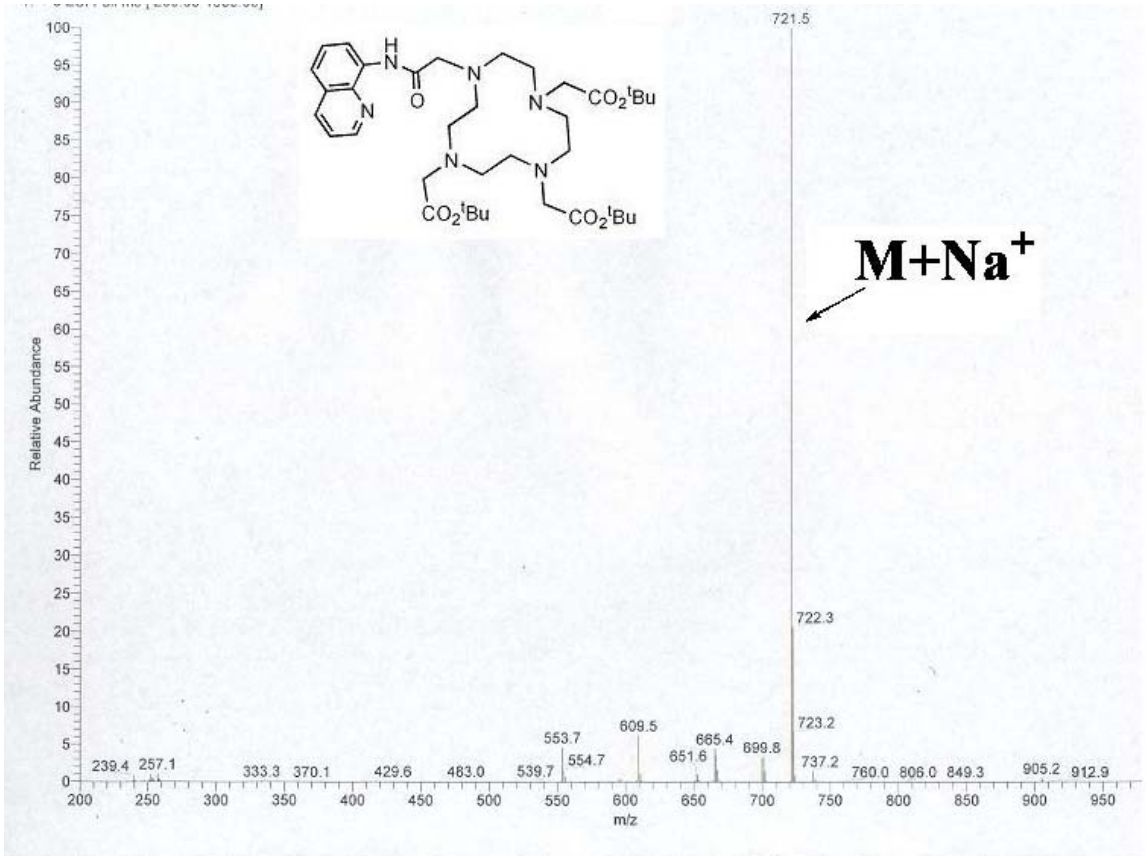

Fig. S1. ESI-MS of 1-(N-quinolin-8-yl-acetamide)-4,7,10-tris(acetic acid)-1,4,7,10-tetraazacyclododecane (**3**).

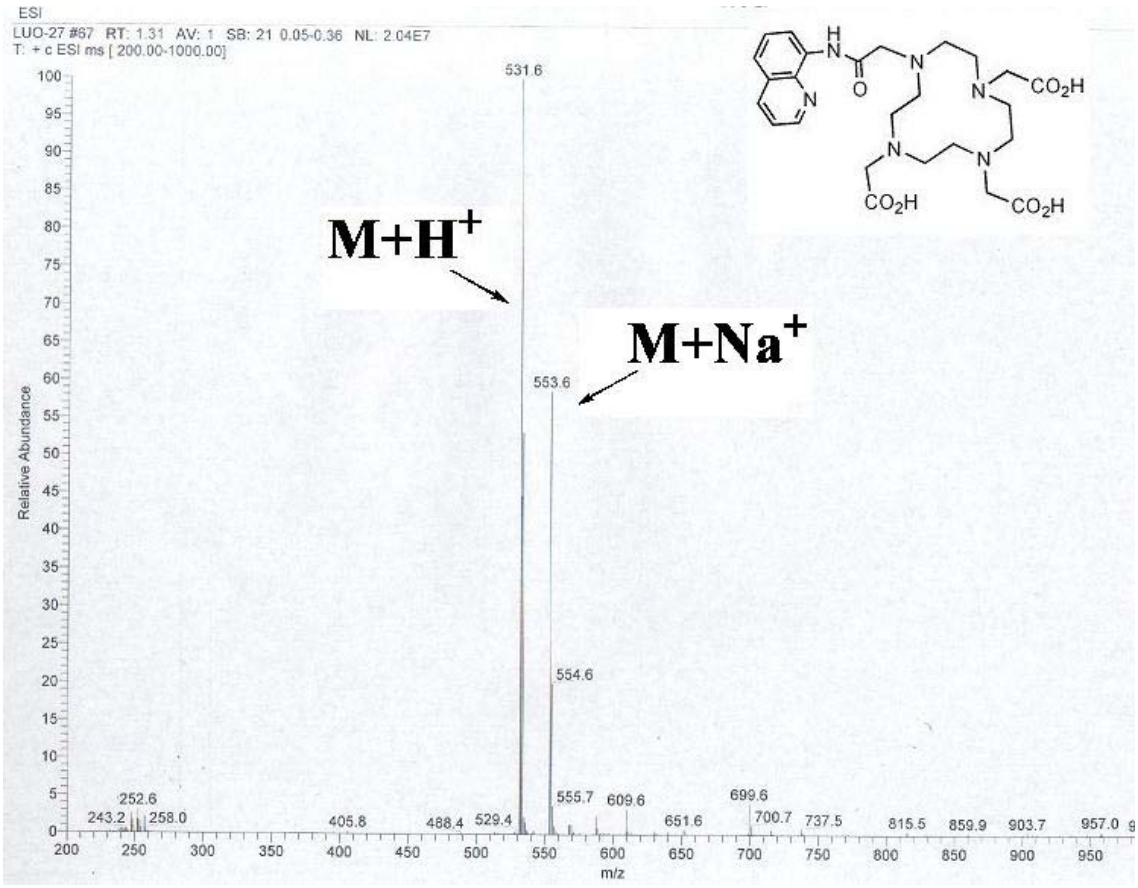

Fig. S2. ESI-MS of ligand H_3QDOTAMA.

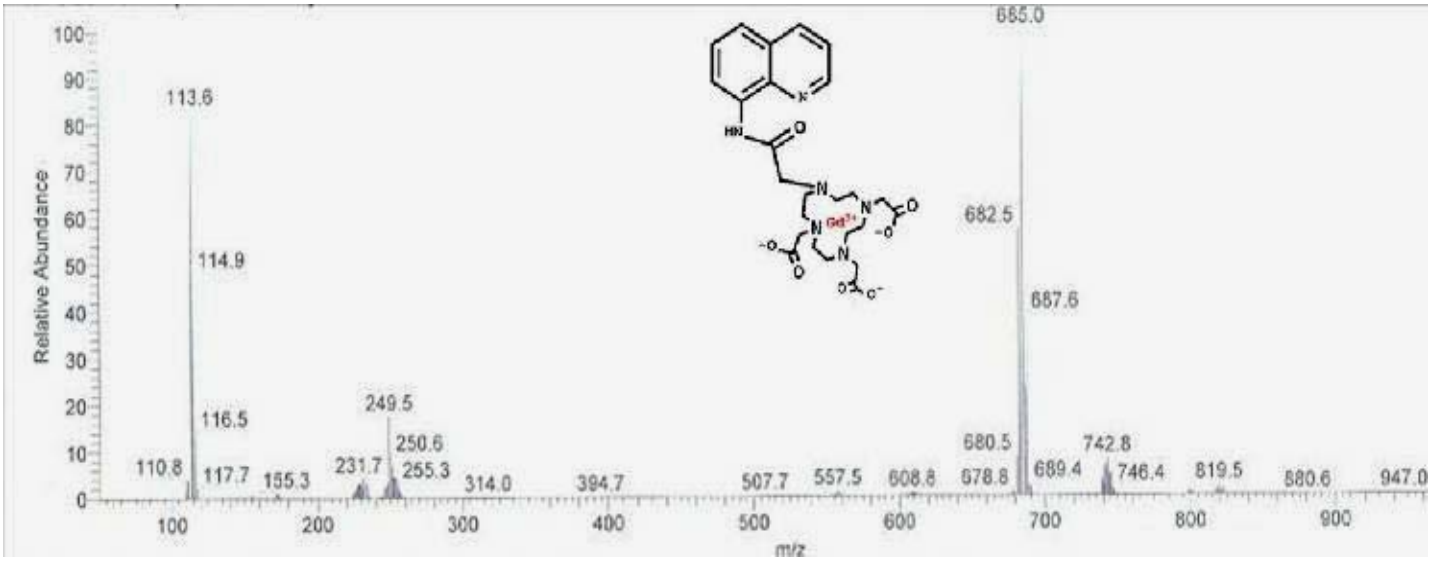

Fig. S3. ESI-MS of Gd-QDOTAMA.

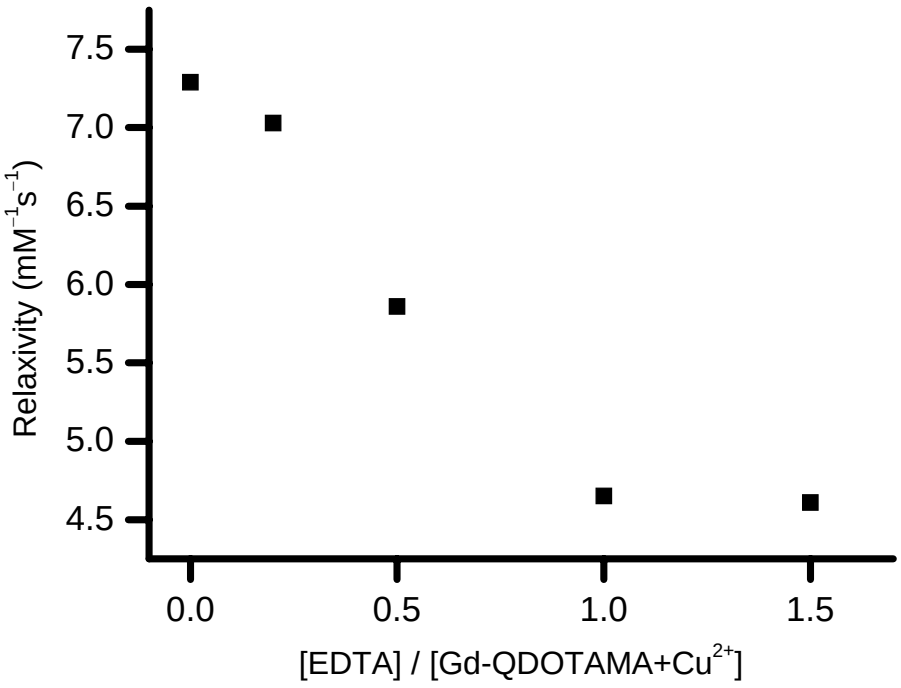

Fig. S4. Relaxivity changes of Gd-QDOTAMA+Cu^{2+} by addition of 0−1.5 equiv. of EDTA in 100 mM hepes buffer at pH 7.2. T_1 measurements were acquired at 400 MHz and 25 ˚C.

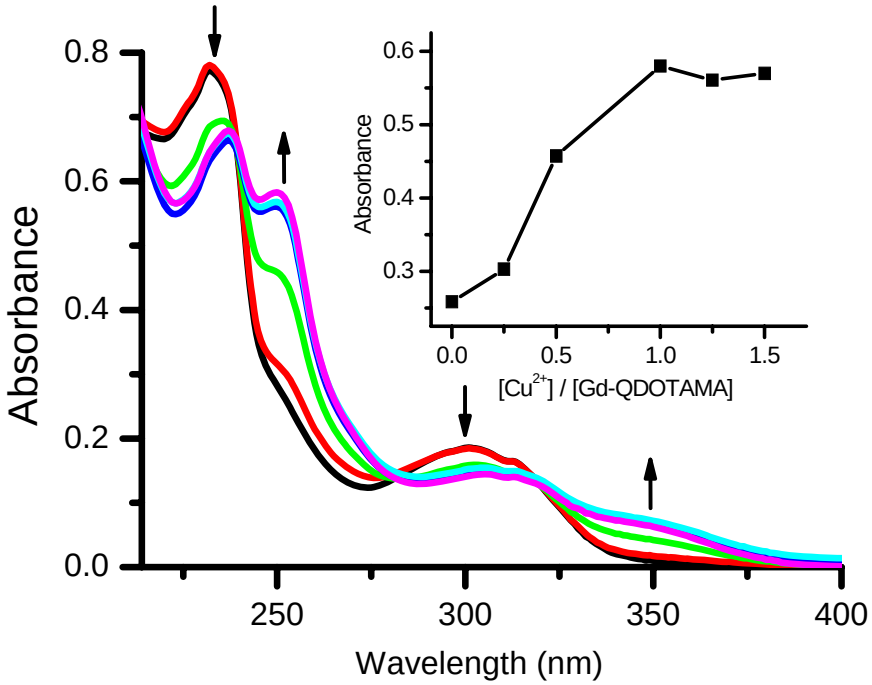

Fig. S5. UV-vis spectral changes for complex Gd-QDOTAMA (0.4 mM) upon titration with $CuCl_2$ (0–1.5 equiv) in H_2O. Inset: dependence of the absorbance at λ = 250 nm on the concentration ratio [Cu2+]/[Gd-QDOTAMA], showing a 1:1 binding ratio between Gd-QDOTAMA and Cu^{2+}.

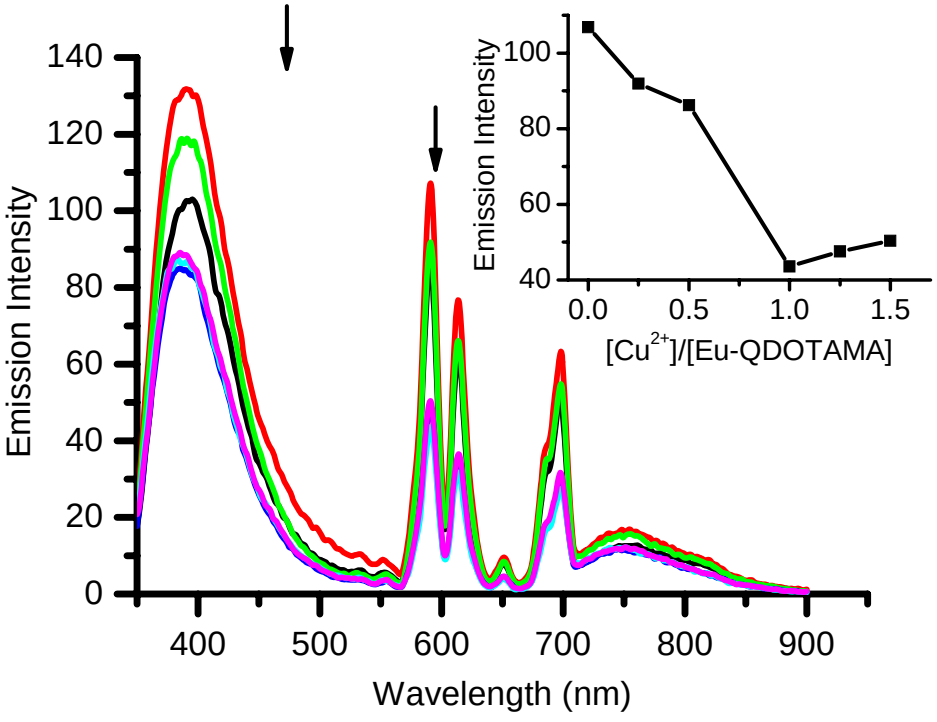

Fig. S6. Emission spectral changes (λ_{ex} = 300 nm) for Eu-QDOTAMA (0.4 mM) upon titration with $CuCl_2$ (0–1.5 equiv) in H_2O. Inset: dependence of Eu^{III}-based emission intensity at λ_{em} = 591 nm on the concentration ratio [Cu^{2+}]/[Eu-QDOTAMA], showing a 1:1 binding ratio between Eu-QDOTAMA and Cu^{2+}.