

Supporting Information

Progesterone-Targeted Magnetic Resonance Imaging Probes

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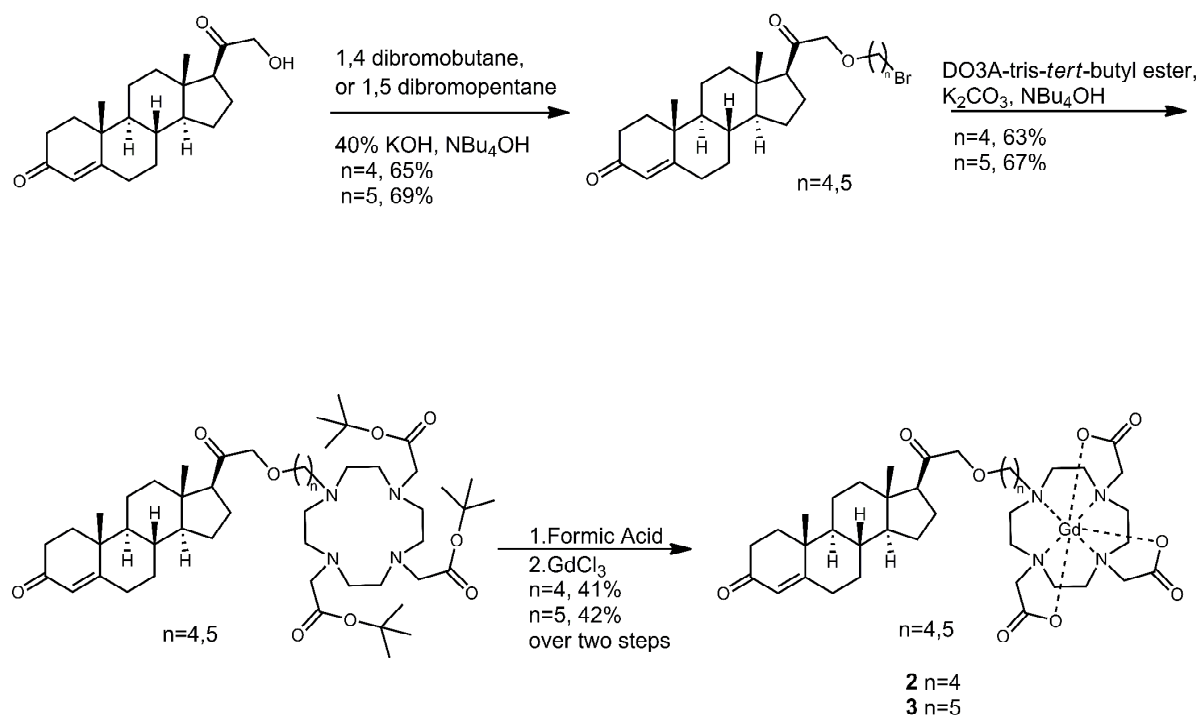


Figure S1: Synthetic scheme of PR-targeted MR Contrast Probes

Cytotoxicity of Complexes in PR- Cell Line

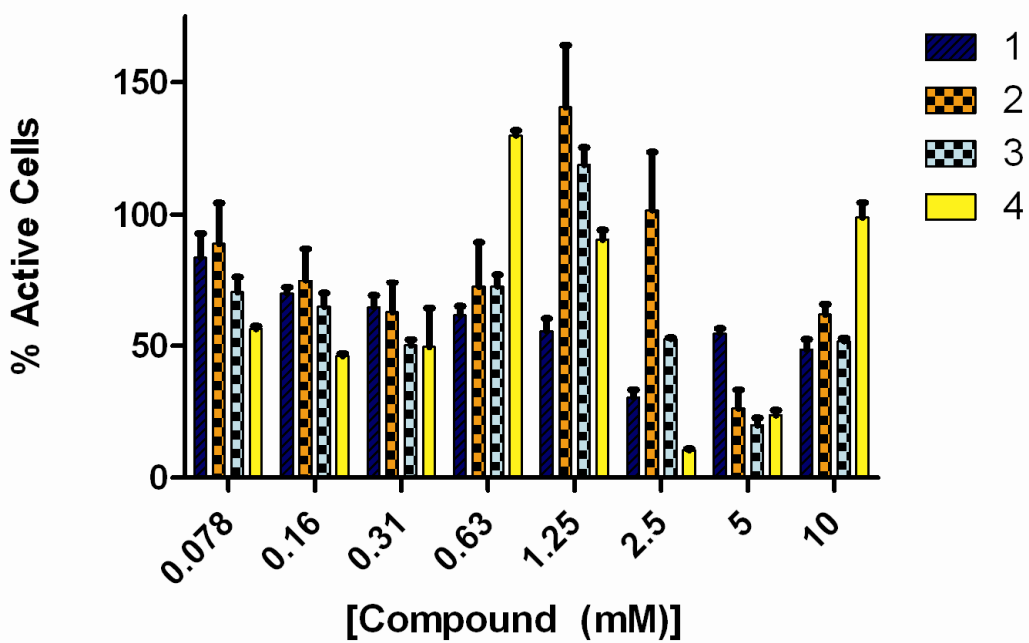


Figure S2: Cytotoxicity of complexes 1-4 in PR- MDA-MB-231 cells.

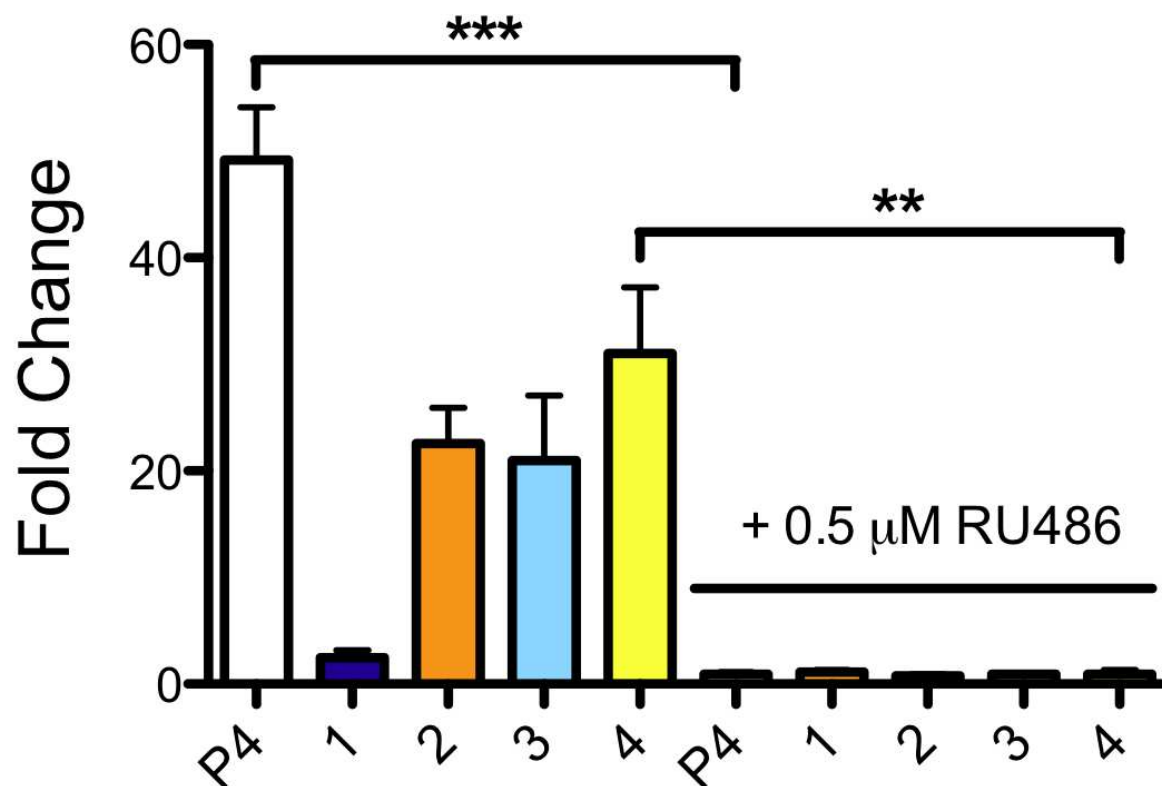


Figure S3: Luciferase activity induced by contrast probes is blocked by RU-486, a synthetic PR antagonist. This implies that luciferase activity seen is related to probe interaction with PR. Error bars represent \pm one standard deviation. Statistical differences, as indicated by asterisks, were determined using a one way ANOVA test. * $p < 0.01$ (relative to all other compounds) *** $p < 0.001$, ** $p < 0.01$

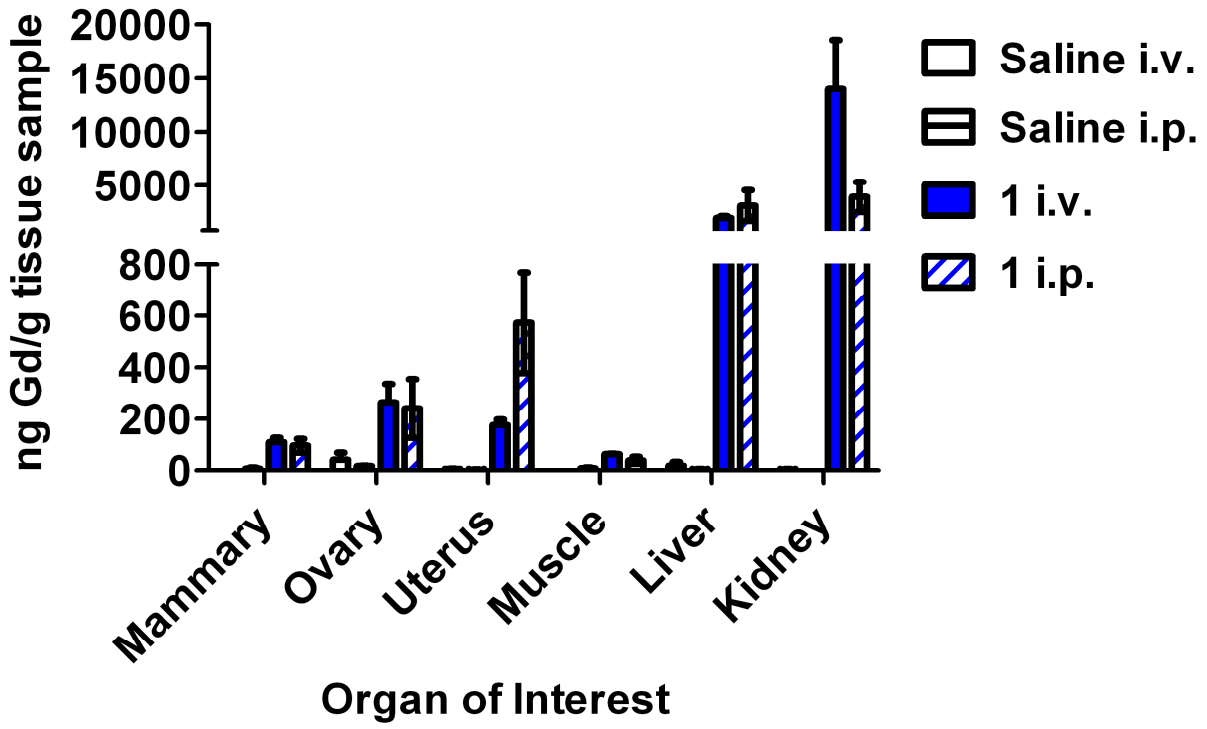
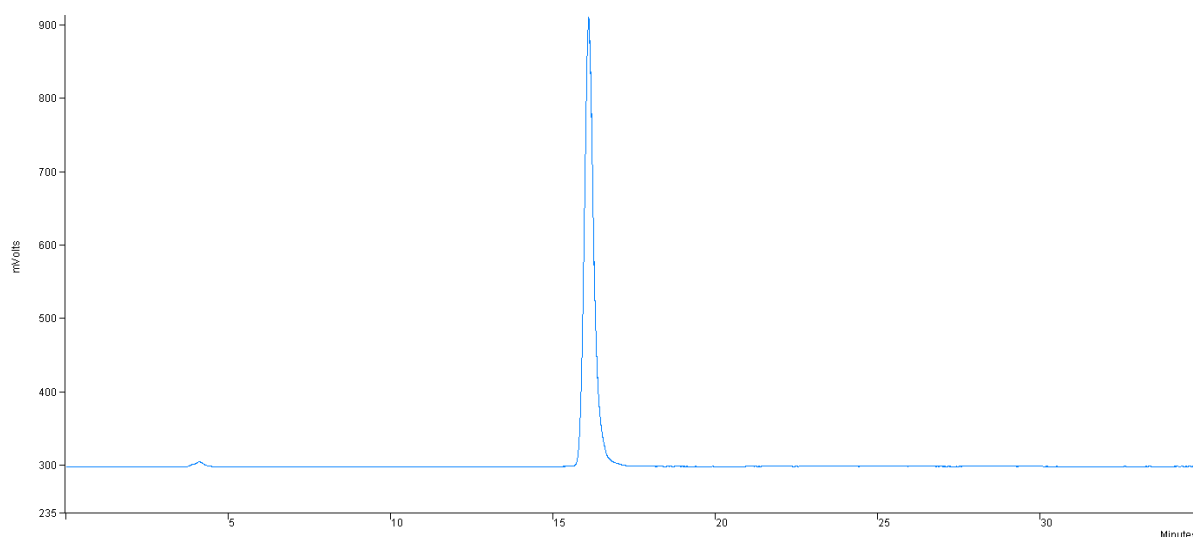


Figure S4: Biodistribution at 6 hour time point including organs used for contrast agent clearance (liver and kidney).

{2,2',2''-(10-(4-(2-((10R,13S,17S)-10,13-dimethyl-3-oxo-2,3,6,7,8,9,10,11,12,13,14,15,16,17-tetradecahydro-1H-cyclopenta[a]phenanthren-17-yl)-2-oxoethoxy)butyl)-1,4,7,10-tetraazacyclododecane-1,4,7-triyl)triacetatgadolinium (2). HRMS (ESI) m/z $[M + H]^+$ observed: 886.3590, calculated 886.36019 for $C_{39}H_{60}GdN_4O_9$. Analytical HPLC trace of the purified product is shown below.



2,2',2''-(10-(5-(2-((10R,13S,17S)-10,13-dimethyl-3-oxo-2,3,6,7,8,9,10,11,12,13,14,15,16,17-tetradecahydro-1H-cyclopenta[a]phenanthren-17-yl)-2-oxoethoxy)pentyl)-1,4,7,10-tetraazacyclododecane-1,4,7-triyl)triacetic acid
(3). HRMS (ESI) m/z $[M + H]^+$ observed: 900.3726, calculated 900.37584 for $C_{40}H_{62}GdN_4O_9$. Analytical HPLC trace of the purified product is shown below.

