Supplementary material

Protamine-1 Encoded Recombinant Adeno-associated Virus for Enhanced Brain Magnetic Resonance Imaging

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Chromatogram



Fig. S1. Analytical HPLC profile of purified PRM1 peptide product.

Mass Spectrometry



Fig. S2. Mass spectrometry analysis of PRM1.



Fig. S3. The dependence of MTR_{asym} (%) on varying pH levels for PRM1 solutions at 1.5 ppm. $B_1 = 3.6 \mu$ T, $T_{sat} = 4$ s.



Fig. S4. MTR_{asym} map of a healthy mouse brain acquired at varying B_1 saturation powers (0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 4.0, and 5.0 μ T). (a) MTR_{asym} map of the brain. (b) Corresponding Z-spectra and MTR_{asym} spectra.



Fig. S5. MTR_{asym} map of the five-mouse brain 30 days post-injection. CEST data were acquired at 9.4 T, $B_1 = 2.4 \mu$ T, and $T_{sat} = 3 s$