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MDPI

Supplementary Materials

Development of Magnetic Nanobeads Modified by Artificial Fluorescent Peptides for the Highly Sensitive and Selective Analysis of Oxytocin

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Contents:

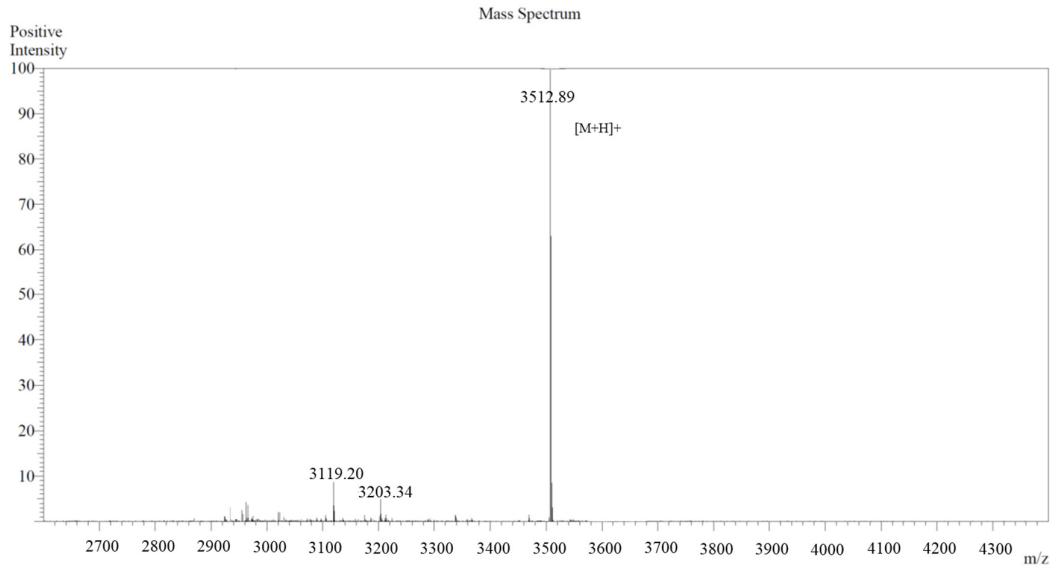

Figure S1. MALDI-TOF MS spectra of compound **1**.

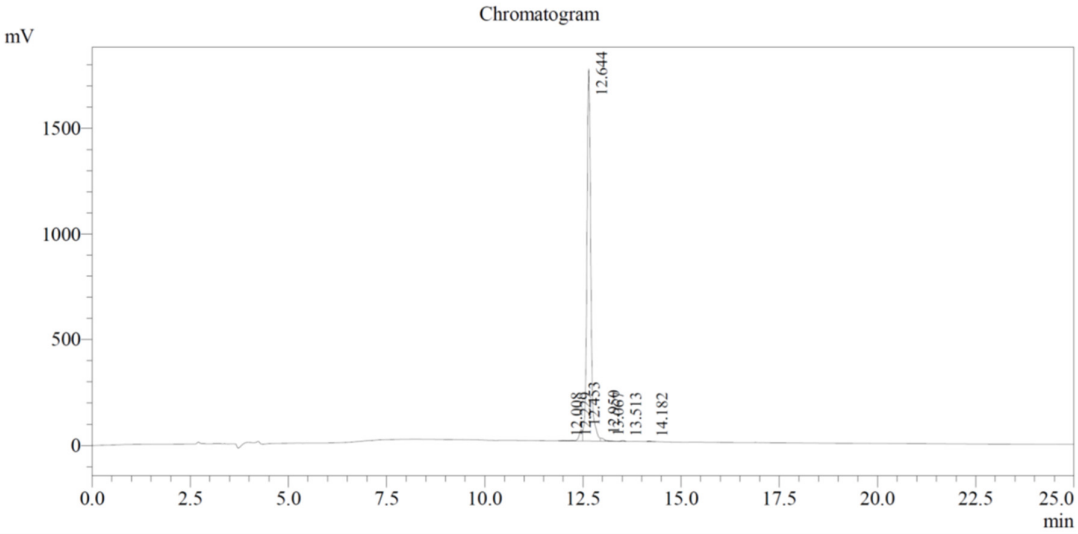

Figure S2. HPLC chromatogram of compound **1**. Experimental conditions are as follows: Flow rate, 1.0 mL/min; Mobile phase: Pump A, 0.06% TFA in 100% water (v/v); Pump B, 0.05% TFA in 100% acetonitrile (v/v).

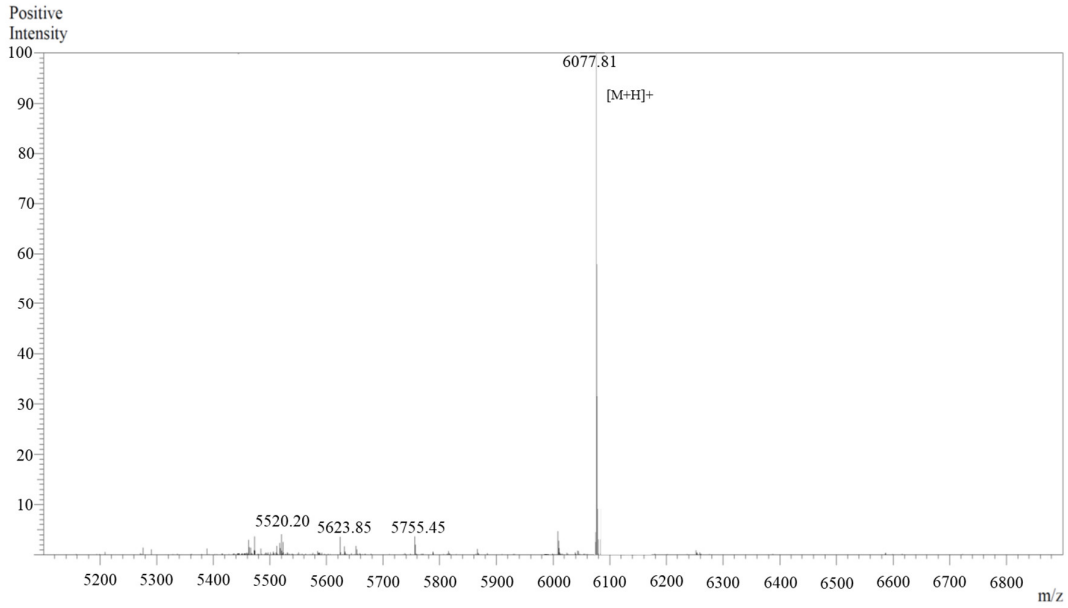

Figure S3. MALDI-TOF MS spectra of compound **2**.

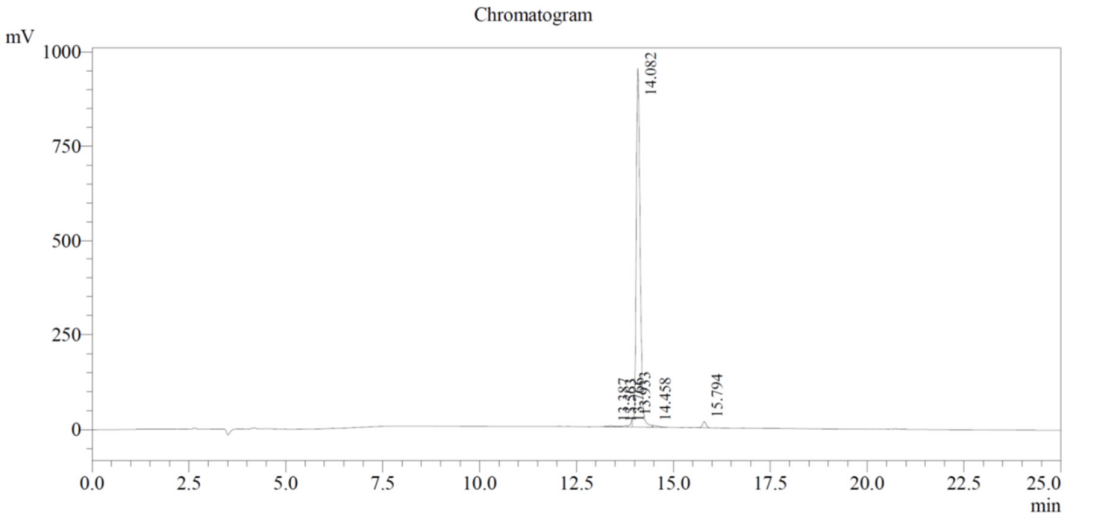

Figure S4. HPLC chromatogram of compound **2**. Experimental conditions are as follows: Flow rate, 2.0 mL/min; Mobile phase: Pump A, 0.06% TFA in 100% water (v/v), Pump B, 0.05% TFA in 100% acetonitrile (v/v).

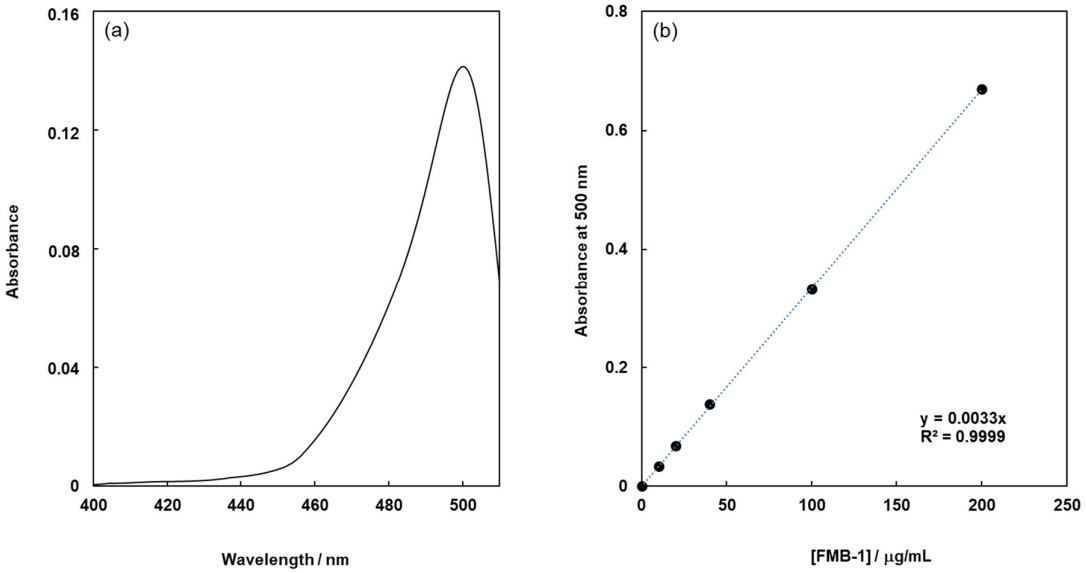

Figure S5. Absorption spectrum of **FMB-1** whose concentration was 40 μg/mL (a), and the relationship between the absorbance at 500 nm and the concentration of **FMB-1** (b). [**FMB-1**] = 0~200 μg/mL; solvent = 20.0 mM HEPES buffer (pH 7.0).

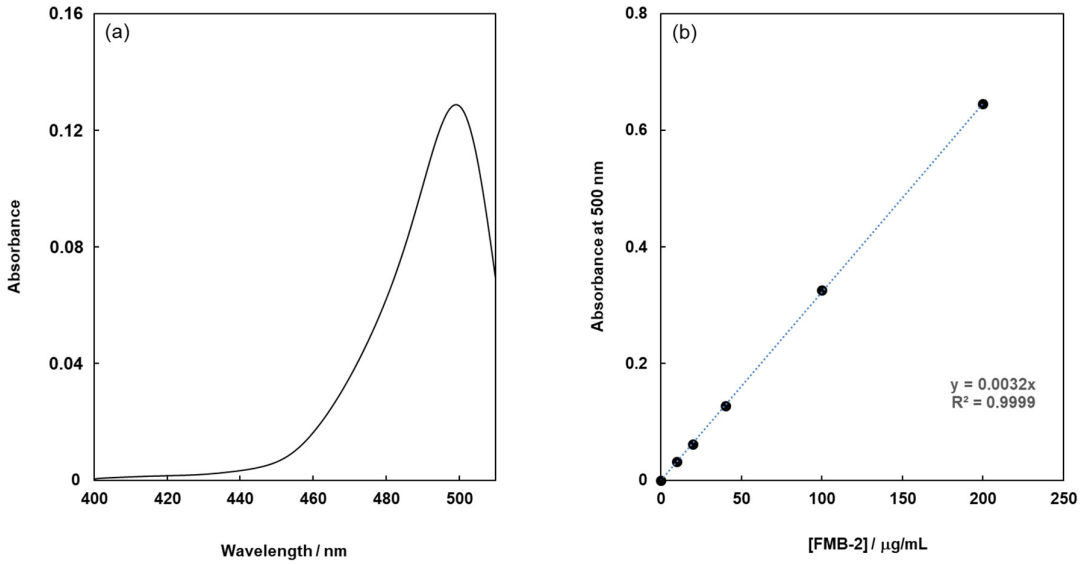

Figure S6. Absorption spectrum of **FMB-2** whose concentration was 40 μg/mL (a), and the relationship between the absorbance at 500 nm and the concentration of **FMB-2** (b). [**FMB-2**] = 0~200 μg/mL; solvent = 20.0 mM HEPES buffer (pH 7.0).

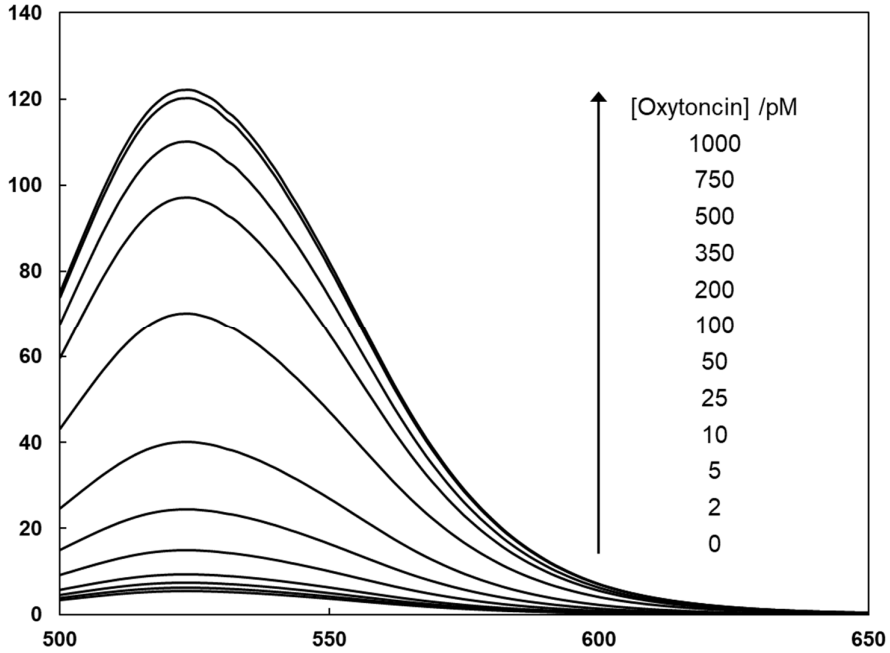

Figure S7. Fluorescence spectra of **FMB-1** before and after addition of varying concentrations of oxytocin. [**FMB-1**] = 40 μg/mL; [Oxytocin] = 0~1000 pM; solvent = 20.0 mM HEPES buffer (pH 7.0); excitation wavelength = 490 nm.

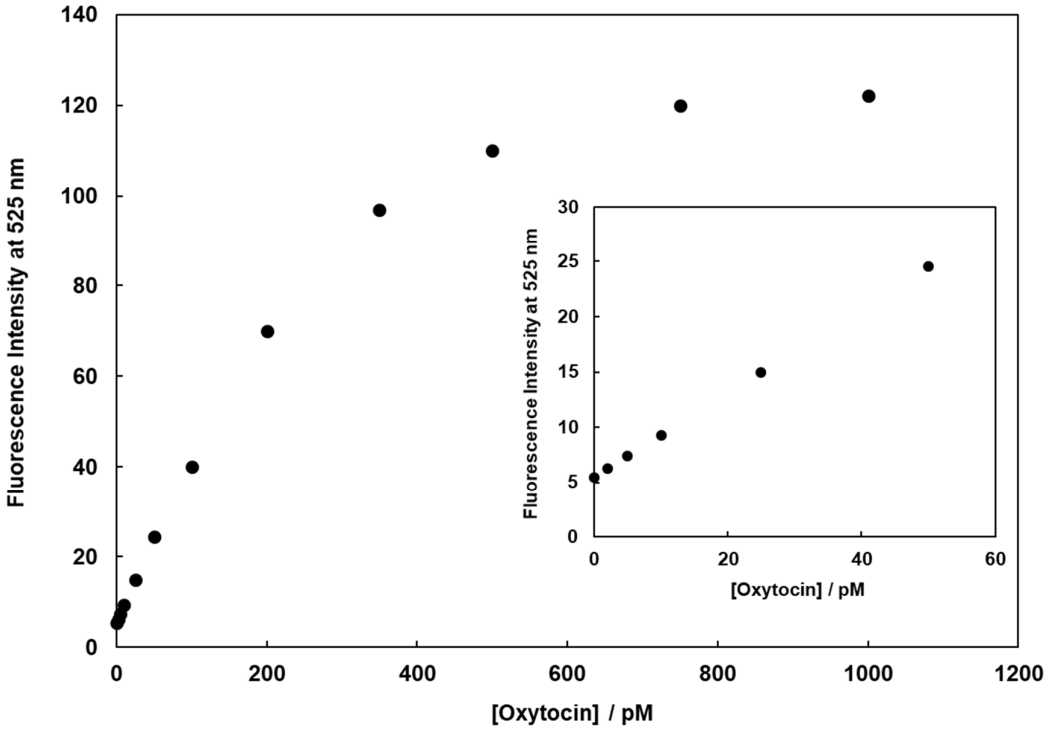

Figure S8. Fluorescence intensities (at 525 nm) of **FMB-1** after the addition of various concentrations of oxytocin. [**FMB-1**] = 40 μg/mL; excitation wavelength, 490 nm.

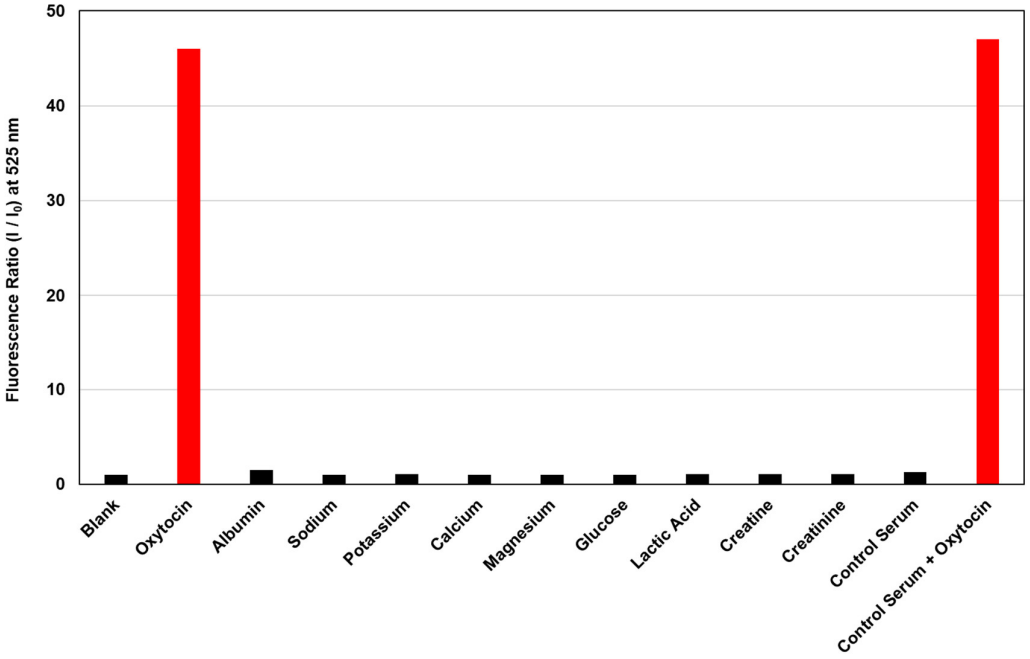

Figure S9. Fluorescence intensity of **FMB-2** at 525 nm before and after the addition of oxytocin and various foreign substances. [**FMB-2**] = 40 μg/mL; [Oxytocin] = 500 pM; [albumin] = 5.0 g/dL; [globulin] = 5.0 g/dL; [sodium] = 190 mg/dL; [potassium] = 190 mg/dL; [calcium] = 190 mg/dL; [magnesium] = 190 mg/dL; [glucose] = 100 mg/dL; [lactic acid] = 15 mg/dL; [creatine] = 3.9 mg/dL; [creatinine] = 0.9 mg/dL; excitation wavelength = 490 nm. I is the fluorescence intensity of **FMB-2** at 525 nm before and after the addition of various compounds, and I_0 is the fluorescence intensity of **FMB-2** at 525 nm.