Electronic Supplementary Material (ESI) for Metallomics
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ESI, S1

SEC-ICP-AES derived Cd-specific chromatograms obtained after the analysis of (i) Cd$^{2+}$-spiked rabbit plasma to which 0.33 mM DTPA had been added at the 5 min time point (green line) and (ii) a [Cd-DTPA]$^{3-}$ complex prepared in PBS-buffer by mixing Cd$^{2+}$ and DTPA to obtain a solution with a Cd-concentration of 1.0 mM and a molar ratio of DTPA:Cd$^{2+}$ of 20 (pink line). Column: Superdex 200 10/300 GL (30 x 1.0 cm I.D., 13 µm particle size), Temperature: 22° C, Mobile Phase: PBS-buffer, pH 7.4, Flow-rate: 1.0 mL/min, Injection volume: 500 µL, Detector: ICP-AES at 226.502 nm (Cd). Retention times of the molecular weight markers are depicted on top of the figure. Inset: ESI-MS identification of [Cd-DTPA]$^{3-}$ complex in the aforementioned Cd$^{2+}$/DTPA mixture (Agilent 6520 Accurate Mass Q-TOF MS instrument, negative ion mode). The solution was introduced into the ESI source (temperature: 200° C) at a flow rate of 0.2 mL/min using methanol as solvent.
ESI, S2

SEC-ICP-AES derived Zn-specific chromatograms obtained after the analysis of (i) Cd\(^{2+}\)-spiked rabbit plasma to which 0.33 mM DTPA had been added at the 5 min time point (green line) and (ii) a [Zn-DTPA]\(^{3-}\) complex prepared in PBS-buffer by mixing Zn\(^{2+}\) and DTPA to obtain a solution with a Zn-concentration of 1.0 mM and a molar ratio of DTPA:Zn\(^{2+}\) of 20 (pink line). Column: Superdex 200 10/300 GL (30 x 1.0 cm I.D., 13 \(\mu\)m particle size), Temperature: 22° C, Mobile Phase: PBS-buffer, pH 7.4, Flow-rate: 1.0 mL/min, Injection volume: 500 \(\mu\)L, Detector: ICP-AES at 213.856 nm (Zn). Retention times of the molecular weight markers are depicted on top of the figure. Inset: ESI-MS identification of [Zn-DTPA]\(^{3-}\) complex in the aforementioned Zn\(^{2+}\)/DTPA mixture (Agilent 6520 Accurate Mass Q-TOF MS instrument, negative ion mode). The solution was introduced into the ESI source (temperature: 200° C) at a flow rate of 0.2 mL/min using methanol as solvent.
SEC-ICP-AES derived Ca-specific chromatograms obtained after the analysis of (i) Cd\(^{2+}\)-spiked rabbit plasma to which 0.33 mM DTPA had been added at the 5 min time point (green line) and (ii) a [Ca-DTPA]\(^{3-}\) complex prepared in PBS-buffer by mixing Ca\(^{2+}\) and DTPA to obtain a solution with a Ca-concentration of 1.0 mM and a molar ratio of DTPA:Ca\(^{2+}\) of 20 (pink line). Column: Superdex 200 10/300 GL (30 x 1.0 cm I.D., 13 µm particle size), Temperature: 22° C, Mobile Phase: PBS-buffer, pH 7.4, Flow-rate: 1.0 mL/min, Injection volume: 500 µL, Detector: ICP-AES at 393.366 nm (Ca). Retention times of the molecular weight markers are depicted on top of the figure. Inset: ESI-MS identification of [Ca-DTPA]\(^{3-}\) complex in the aforementioned Ca\(^{2+}\)/DTPA mixture (Agilent 6520 Accurate Mass Q-TOF MS instrument, negative ion mode). The solution was introduced into the ESI source (temperature: 200° C) at a flow rate of 0.2 mL/min using methanol as solvent.