

## Supplementary Materials

### Sensing of Catecholamine in Human Urine Using a Simple Colorimetric Assay Based on Direct Melanochrome and Indolequinone Formation

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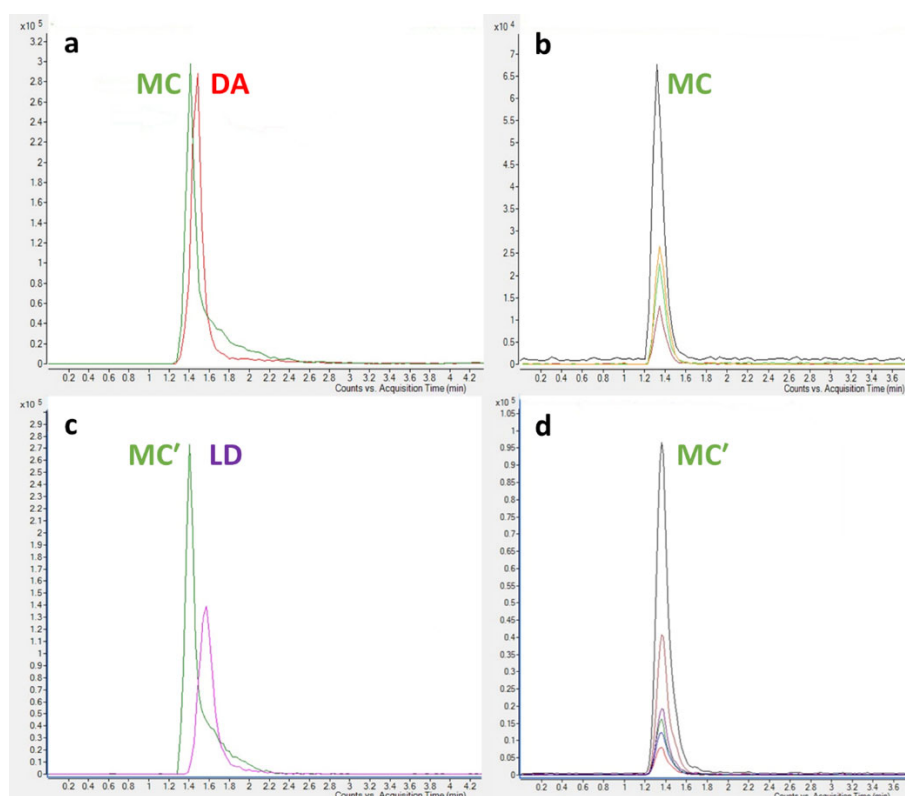
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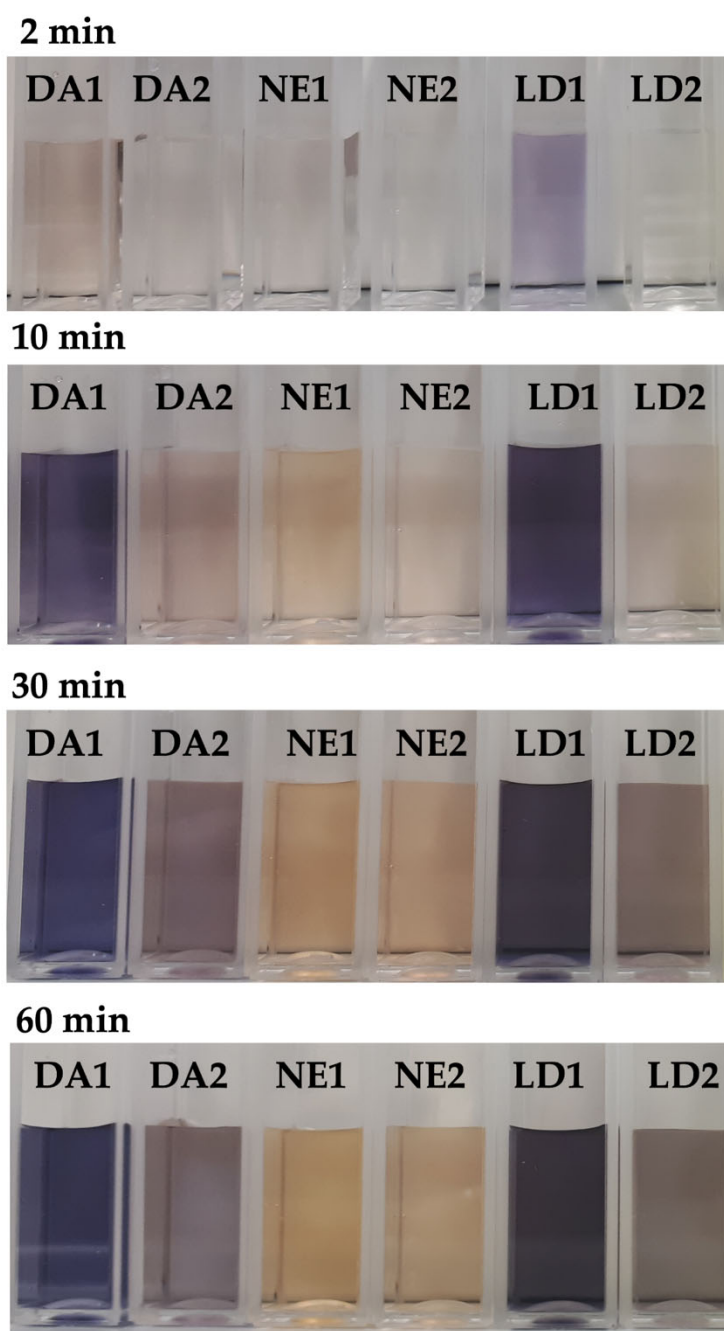
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**Figure S1.** MRM chromatograms. (a) Catecholamine standard DA superimposed to the melanochrome molecules MC from DA. (b) MC transitions. (c) Catecholamine standard LD superimposed to the melanochrome molecules MC' from LD. (d) MC' transitions.



**Figure S2.** Time-dependent oxidation of catecholamines at 25 °C (Spectra in Figure 1). Chosen pictures of dopamine (DA1 and DA2), norepinephrine (NE1 and NE2), and levodopa (LD1 and LD2) 0.2 g L<sup>-1</sup> in (1) DMSO:H<sub>2</sub>O 1:1 (v/v) or (2) H<sub>2</sub>O in presence of 150 mM Mg(Ac)<sub>2</sub>, 150 mM NH<sub>4</sub>Cl at pH 9.4 after 2 min, 10 min, 30 min, and 60 min.

**Table S1.** Dopamine and levodopa colorimetric quantification in human urine (Figure 2).

Catecholamine	<sup>1</sup> m (L g <sup>-1</sup> )	a	LOD (mg L <sup>-1</sup> )	LOQ (mg L <sup>-1</sup> )	R <sup>2</sup>	<sup>2</sup> RSD <sub>av</sub> (%)
DA	3.61 ± 0.17	0.053 ± 0.004	3.69 ± 0.17	12.3 ± 0.6	0.991	3.7
LD	5.32 ± 0.18	0.038 ± 0.005	2.51 ± 0.09	8.4 ± 0.3	0.994	6.1

<sup>1</sup>Fitting equation 1:  $A_{585nm} = m \times C + a$

<sup>2</sup>Calculated between 5.0 mg L<sup>-1</sup> and 50.0 mg L<sup>-1</sup> of DA or LD spiked in human urine.

For abbreviations meaning, refer to Materials and Methods.