

**Table S1**Linearity and sensitivity data for compounds used as hemp standards<sup>a</sup>

| Compound    | Linearity range (µg/mL) | Slope ( <i>a</i> ) | Intercept ( <i>b</i> ) | <i>r</i> <sup>2</sup> | LOD (µg/mL) | LOQ (µg/mL) |
|-------------|-------------------------|--------------------|------------------------|-----------------------|-------------|-------------|
| CBDA        | 2.5 - 200.0             | 31.9 ± 0.2         | 29.6 ± 24.2            | 0.9996                | 0.8         | 2.5         |
| CBGA        | 2.5 - 200.0             | 32.4 ± 0.2         | 30.2 ± 21.4            | 0.9997                | 0.8         | 2.5         |
| CBG         | 1.3 - 100.0             | 52.0 ± 0.6         | 374.3 ± 29.8           | 0.9990                | 0.4         | 1.3         |
| CBD         | 2.5 - 200.0             | 74.9 ± 0.8         | -60.3 ± 23.3           | 0.9990                | 0.8         | 2.5         |
| Chrysoeriol | 1.3 - 43.0              | 21.4 ± 0.5         | 29.7 ± 3.6             | 0.9991                | 0.4         | 1.3         |
| Canniprene  | 0.3 - 23.4              | 121.2 ± 0.9        | 81.8 ± 10.2            | 0.9990                | 0.1         | 0.3         |

Experimental conditions as in Section 3.6.

<sup>a</sup> For each curve the equation is  $y = ax + b$ , where  $y$  is the peak area,  $x$  the concentration of the analyte (µg/mL),  $a$  is the slope,  $b$  is the intercept and  $r^2$  the correlation coefficient. Standard error (S.E.) values are given in parenthesis. The  $p$  value was  $< 0.0001$  for all calibration curves.

**Table S2**Intra- and inter-day precision data for retention time ( $t_R$ ) and peak area of the main flavonoids in hemp extracts (sample C6)

|       | Intra-day precision ( $n = 6$ , mean) |  |                              |  |                              |  | Inter-day precision ( $n = 18$ , mean) |  |
|-------|---------------------------------------|--|------------------------------|--|------------------------------|--|--|--|
|       | Day 1                                 |  | Day 2                        |  | Day 3                        |  | $t_R$ (min) $\pm$<br>RSD (%)           | Area (mAU $\times$ s) $\pm$<br>RSD (%) |
|       | $t_R$ (min) $\pm$<br>RSD (%)          | Area (mAU $\times$ s) $\pm$<br>RSD (%) | $t_R$ (min) $\pm$<br>RSD (%) | Area (mAU $\times$ s) $\pm$<br>RSD (%) | $t_R$ (min) $\pm$<br>RSD (%) | Area (mAU $\times$ s) $\pm$<br>RSD (%) |  |  |
| CFL-B | 14.6 $\pm$ 2.1                        | 516.5 $\pm$ 2.5                        | 14.6 $\pm$ 1.1               | 535.1 $\pm$ 2.7                        | 14.3 $\pm$ 2.4               | 540.3 $\pm$ 2.9                        | 14.5 $\pm$ 2.0                         | 530.6 $\pm$ 3.2                        |
| CFL-A | 21.2 $\pm$ 1.5                        | 861.7 $\pm$ 3.0                        | 21.1 $\pm$ 1.2               | 847.8 $\pm$ 1.8                        | 21.0 $\pm$ 2.2               | 860.9 $\pm$ 2.9                        | 21.1 $\pm$ 1.6                         | 856.8 $\pm$ 2.6                        |

Experimental conditions as described in Section 3.6.

**Table S3**

Intra- and inter-day precision data for the extraction of the main flavonoids from hemp (sample C6)

|       | Intra-day precision ( $n = 6$ , mean) |                               |                               | Inter-day precision ( $n = 18$ , mean) |
|-------|---------------------------------------|-------------------------------|-------------------------------|--|
|       | Day 1                                 | Day 2                         | Day 3                         |  |
|       | $\mu\text{g/g} \pm \text{SD}$         | $\mu\text{g/g} \pm \text{SD}$ | $\mu\text{g/g} \pm \text{SD}$ | $\mu\text{g/g} \pm \text{SD}$          |
| CFL-B | $77.2 \pm 11.3$                       | $73.2 \pm 4.1$                | $77.4 \pm 1.3$                | $75.9 \pm 6.6$                         |
| CFL-A | $146.9 \pm 21.3$                      | $137.7 \pm 4.1$               | $137.3 \pm 4.7$               | $140.6 \pm 12.5$                       |

Experimental conditions as described in Section 3.6.