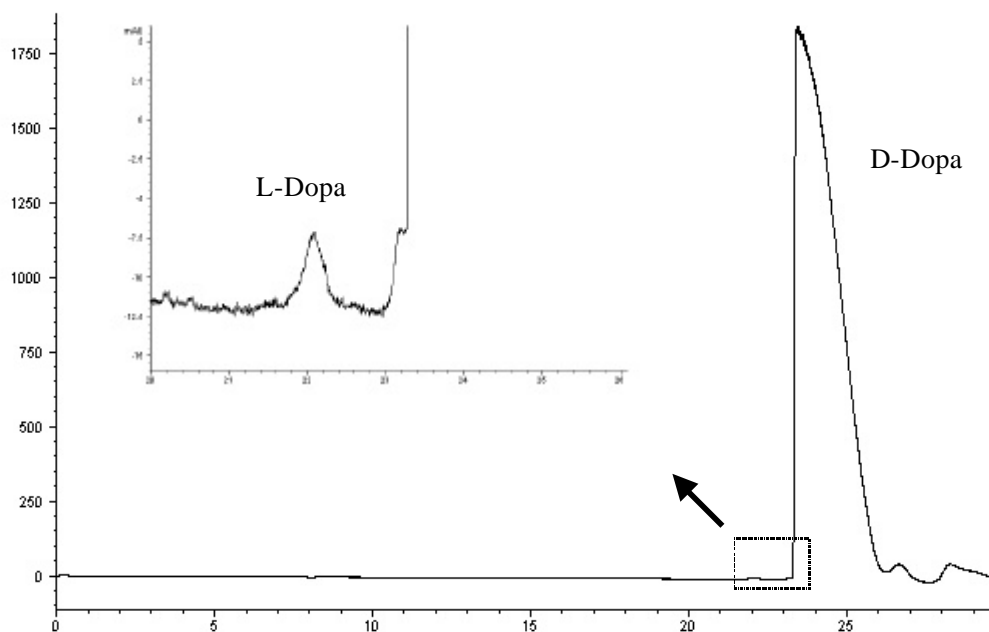


**Figure 5.** Electropherogram obtained for the pharmaceutical preparation in chiral conditions. 10mM TRIS/Citric Acid pH 2.5, 12 mM 18C6H<sub>4</sub>, 15% MeOH, 15°C.



**Figure 6.** Detection of levodopa impurity contained in dextrodopa (conditions as in figure 5). Residues of dextrodopa after the main peak can also be observed due to the high concentration of this analyte injected.

**Table 1.** Figures of merit of the calibration curves used in chiral and nonchiral determinations and to determine limits of detection (LOD) and quantification (LOQ).

| Curve <sup>a)</sup>                            | Concentration Range (mM) | Number of Data points | Intercept <sup>e)</sup> | Slope <sup>e)</sup> | Correlation Coefficient | LOD <sup>b)</sup> (mM) | LOQ <sup>b)</sup> (mM) |
|--|--------------------------|-----------------------|-------------------------|---------------------|-------------------------|------------------------|------------------------|
| <i>Non chiral determinations</i> <sup>c)</sup> |                          |                       |                         |                     |                         |                        |                        |
| Benserazide                                    | 0.24-2.4                 | 6                     | 0.48 ± 0.19             | 13483 ± 187         | 0.9994                  | 0.079                  | 0.19                   |
| L-Dopa   | 1.2-12                   | 6                     | 0.17 ± 0.45             | 8439 ± 85           | 0.9999                  | 0.15                   | 0.42                   |
| <i>Chiral determinations</i> <sup>d)</sup>     |                          |                       |                         |                     |                         |                        |                        |
| L-Dopa   | 0.025-0.080              | 4                     | 0.23 ± 0.22             | 86467 ± 4210        | 0.997                   | 0.013                  | 0.025                  |
| D-Dopa   | 0.025-0.080              | 4                     | 0.49 ± 0.20             | 98425 ± 3384        | 0.9984                  | 0.011                  | 0.025                  |

a) expressed as corrected area by migration time versus concentration.

b) calculated as the signal exceeding three times (LOD) or ten times (LOQ) the standard deviation of the intercept.

c) analytes detected in a conventional capillary at 230 nm.

d) analytes detected in a light path extended X3 capillary at 198 nm.

e) confidence intervals given as standard deviations.

**Table 2.** Quantification of Madopar® 250 tablets. The obtained value is the average of 2 aliquots injected in duplicate and the confidence intervals are given as standard deviations.

| Madopar® 250 mg | Benserazide <sup>a)</sup> (mg/g) | L-Dopa <sup>b)</sup> (mg/g) |
|-----------------|----------------------------------|-----------------------------|
| Batch J3        | 51.62 ± 0.41                     | 200.05 ± 2.13               |
| Batch N25       | 51.93 ± 1.07                     | 203.14 ± 0.50               |

a) Nominal Value= 50 mg/g

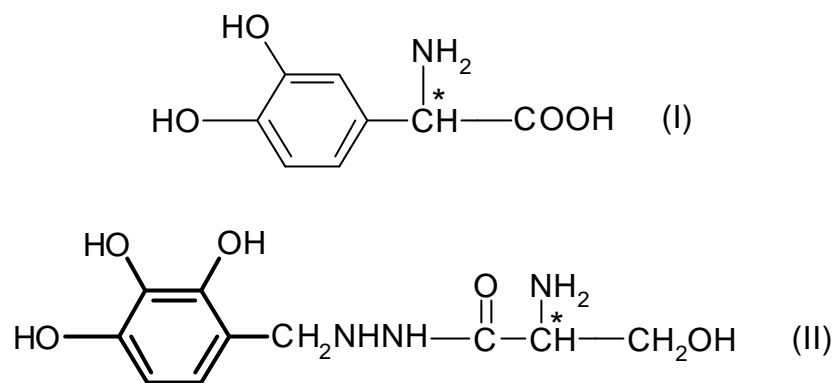
b) Nominal Value= 200 mg/g

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**Figure 1**



**Figure 2**

