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# Determination of enrofloxacin and its metabolite in eggs by capillary electrophoresis together with Fabric Phase Sorptive Extraction(FPSE)

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Enrofloxacin is a kind of fluoroquinolones, widely used in the veterinary treatment of diseases. Its residues in eggs pose a risk to consumers. Fabric Phase Sorptive Extraction (FPSE), a novel sorptive microextraction technique, was used to reduce the interference of the sample matrix and the loss of analytes in the sample pretreatment process. The quantitative analysis of enrofloxacin and its metabolite ciprofloxacin was carried out by capillary zone electrophoresis. The separation conditions were optimized: the running buffer solution was a 40 mM phosphate solution at pH 7.6, the detection wavelength at 254 nm, the separation voltage at 10 kV, the injection time 15s and the sample solvent was a buffer solution diluted 100 times. The linear range of enrofloxacin and ciprofloxacin was 0.5-10 μg/ml and the detection limits were 0.33μg/mL and 0.17 μg/mL, respectively. The recoveries of the samples were between 94.4-114.3%. This study extends the application of FPSE in capillary electrophore ciprofloxacin analysis.

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