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EXTRACTION, SEPARATION AND DETERMINATION OF TETRACYCLINE IN POULTRY USING (HPLC-DAD)

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This research deals with determine the optimal conditions for extraction, separation and determination of tetracycline compound in poultry using high performance liquid chromatography technique with diode array detector (HPLC-DAD). The study shows a good recovery ratio for tetracycline compound 87.50% at the extraction by ultrasonic water bath with a percentage relative standard deviation less than 1% during half an hour. The best recovery ratio for tetracycline compound in poultry 89.55% was recorded using an extraction solvent of Mcllvaine-EDTA at pH: 2.6. On the other hand, cartridges solid phase extraction oasis HLB (hydrophilic lipophilic balance copolymer) show a good response for the recovery of tetracycline compound 86.0% from poultry samples at a concentration of 0.1ppm in comparison with other cartridges. The recovery ratio of tetracycline compound doesn't affected by increasing the volume of methanol used in elution more than 3.5ml. The study mentioned that the hold time needed for the quantitative determination of tetracycline compound from six poultry samples was about three and half hours, which considered as a good time for the application of this method in the control laboratories.

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