Anticoagulants in biological and feed specimens by high performance liquid chromatography with electrospray ionization and mass spectrometric detection…The Journey

The presentation is the process by which a rapid anticoagulant screen was developed for the Wisconsin Veterinary Diagnostic Laboratory using a combination of sources. This method uses a 2 gram sample, extracted using acetone with a solid phase clean-up to provide a rapid analysis of the following coumarin rodenticides: brodifacoum, bromadiolone, coumachlor, coumafuryl, coumatetralyl, diphenacoum, difethialone, warfarin, and indandione rodenticides: chlorophacinone, diphacinone and pindone.

Identification and quantitation are acquired by reverse phase HPLC analysis using single quadruple mass spec detection. This is done using two separate HPLC runs, one using an acidic mobile phase for the coumarins and the other using a basic mobile phase for the indandiones.

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