User Guide

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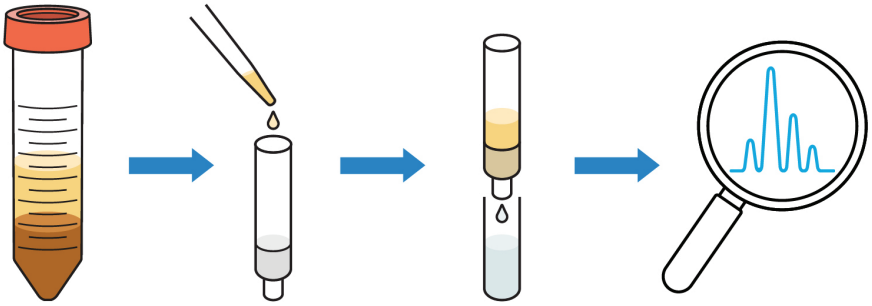
Agilent Captiva EMR Mycotoxins User Guide

General instructions for Captiva EMR Mycotoxins cartridges

Agilent Captiva EMR Mycotoxins 3 mL and 6 mL cartridges are designed specifically for multiclass, multiresidue mycotoxins analysis in food and feed matrices. Modified QuEChERS extraction is recommended for sample extraction, followed by enhanced matrix removal (EMR) mixed-mode passthrough cleanup using Captiva EMR Mycotoxins cartridges. The cartridge cleanup removes matrix interferences, including carbohydrates, organic acids, lipids and fats, pigments, and other hydrophilic and hydrophobic interferences, while delivering excellent multiclass mycotoxins recovery and reproducibility. The 6 mL cartridge format provides more sample eluent which allows sample post-concentration after cleanup, when necessary.

Operating instructions for Agilent Captiva EMR Mycotoxins cartridges



QuEChERS extraction | Sample loading | EMR mixed-mode passthrough cleanup | LC/MS/MS sample analysis

User tips

Sample Size and Pretreatment	Agilent recommends using 1 to 2.5 g of dry sample (homogenized sample powder) for extraction. Add 7.5 to 10 mL of acidic buffer for sample hydration.
Sample Extraction	Perform a modified QuEChERS extraction using ACN with 2% formic acid and QuEChERS extraction salts. The crude sample extract (supernatant) is used for subsequent cleanup. **Tip:** The stronger acidic extraction solvent is necessary to achieve acceptable mycotoxins recoveries during QuEChERS extraction. **Tip:** Buffered or nonbuffered QuEChERS extraction salts can be used. Agilent recommends using ceramic homogenizers for your sample extraction. Ceramic homogenizers are effective in breaking up matrix and salt agglomerates for higher extraction recoveries of target analytes. Kits featuring ceramic homogenizers are marked with a CH (ex. 5982-5650CH).
Passthrough Cleanup Procedure Using Captiva EMR Mycotoxins Cartridges	1. Premix the crude sample extract with 10% water in another 15 mL tube. Gently mix with a pipette. **Tip:** Agilent recommends performing a cartridge equilibration step before sample loading; this will minimize the impact of cartridge dead volume on final sample eluent volume. For 3 mL cartridges (p/n 5610-2233), add 0.6 mL of sample mixture. Discard eluent. For 6 mL cartridges (p/n 5610-2234), add 0.8 mL of sample mixture. Discard eluent. 2. For 3 mL cartridges (p/n 5610-2233), transfer 2 mL of sample mixture to the cartridge. For 6 mL cartridges (p/n 5610-2234), transfer 4 mL of sample mixture to the cartridge. 3. Allow the sample to flow using gravity elution. Alternatively, low-level vacuum or positive pressure may be used for elution. Once cartridge flowthrough as stopped, apply high-level vacuum or positive pressure for 1 to 2 minutes to dry the cartridge. 4. Collect the eluent and vortex gently.
Sample Post-Treatment	Dilute an aliquot of sample eluent with water to achieve 1:1 ACN/water, then vortex. **Tip:** When ultralow LOQs are required, a post-concentration drying and reconstitution step may be required.

Agilent Captiva EMR Mycotoxins ordering information

Part Number	Description	Quantity
5610-2233	Captiva EMR Mycotoxins, 3 mL	50/pk
5610-2234	Captiva EMR Mycotoxins, 6 mL	30/pk

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