

# Agilent Captiva EMR—Lipid Method Guide

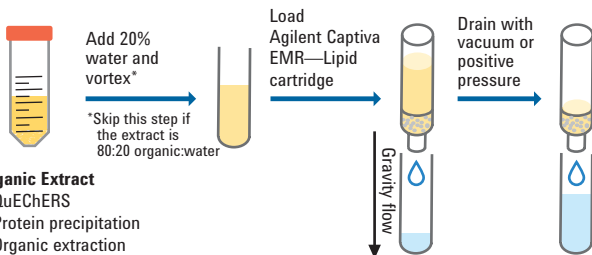
## General instructions for 3 and 6 mL cartridge formats:

Agilent Captiva EMR—Lipid in 3 and 6 mL cartridges allows simple, pass-through removal of lipids from fatty samples. These formats accommodate larger volumes of complex sample extracts including meat, dairy products, and other foods. Organic extracts can be obtained from techniques such as QuEChERS and protein precipitation (PPT), and subsequently passed through the Captiva EMR—Lipid tube Cartridge for postextraction cleanup. The novel EMR—Lipid sorbent chemistry provides selective and efficient lipid/matrix removal without negatively impacting analyte recovery, and gives optimal performance when extracts contain 20% water by volume. High matrix removal assures minimal ion suppression on target analytes, which significantly improves method reliability and ruggedness.



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## Operating instructions and tips for Agilent Captiva EMR—Lipid 3 and 6 mL Cartridge Products



### Organic Extract

- QuEChERS
- Protein precipitation
- Organic extraction

*ACN preferred*



## User Tips

### Pass-through cleanup workflow

Recommended sample loading volume	3 mL (300 mg) cartridge: 1.5 to 2.5 mL sample extract 6 mL (600 mg) cartridge: 3 to 5 mL sample extract
Preferred extraction methods	QuEChERS, protein precipitation, organic extraction
Sample treatment	Dilute organic extract with 20% H <sub>2</sub> O, as required for best results. Water-miscible solvents are required. Acetonitrile is the preferred extraction solvent, as it significantly reduces matrix co-extractives relative to methanol. Alternatively, if extracted with 80:20 organic/water mixture, the extract can directly be applied to the Captiva EMR—Lipid cartridge without water dilution.
Steps	<ol style="list-style-type: none"><li>1. Mix organic extract with 20% H<sub>2</sub>O by volume*.</li><li>2. Load the solution onto tube.</li><li>3. Allow extract to flow under gravity.</li><li>4. When the extract reaches the top of the sorbent, drain the cartridge by pulling a high vacuum, or apply positive pressure for 30 seconds.</li></ol> <p>* Organic extract and water should be mixed in a separate tube, then loaded onto the cartridge; skip this step if the extract is in 80:20 organic/water mixture.</p>
Recovery volume	A subsequent wash with 80:20 ACN:H <sub>2</sub> O (20% sample volume) can improve the recovery of some compounds, including hydrophobic compounds with log P > 6.

## Agilent Captiva EMR—Lipid ordering information

Part number	Description	Quantity
5190-1003	Captiva EMR—Lipid cartridge 3 mL 300 mg	100/pk
5190-1004	Captiva EMR—Lipid cartridge 6 mL 600 mg	50/pk

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