

# Sample Clean-up with Oasis PRIME

What is PRIME?

Process Robustness improvements in... Matrix Effects Ease of Use



SIMPLER. CLEANER. FASTER.

## Oasis PRIME HLB

3-STEP PROTOCOL >> No SPE expertise required

A reversed-phase, solid-phase extraction device



### Patent Pending

Designed to simplify solid-phase extraction



### Simpler

Easy protocols that result in cleaner samples

No condition and equilibration steps are required

Easy to implement into laboratory workflows without SPE expertise



### Cleaner

Removes more than 95% of common matrix interferences such as salts, proteins, fats, pigments, and phospholipids, with the generic 3-step protocol



### Faster

More even flows across cartridges and plates with less plugging

Faster overall processing with the elimination of condition and equilibration steps

CLEAN-UP AND CONCENTRATE ACIDS, BASES, AND NEUTRALS FROM COMPLEX BIOLOGICAL SAMPLE MATRICES >> Concentrate samples up to 15X

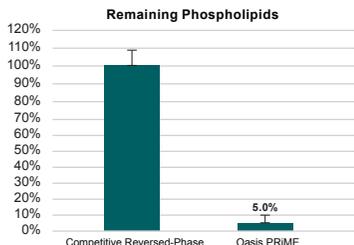
Load: Pre-treated aqueous sample

Wash: 5% MeOH

Elute: 90/10: Acetonitrile/MeOH



Oasis PRIME HLB removes **95%** of phospholipids compared to other reversed-phase solid-phase extraction sorbents



## Oasis PRIME MCX

3-STEP PROTOCOL >>

Need a higher level of specificity for basic compounds?

Mixed-mode (Reversed-phase/Cation-eXchange)



Simplify your steps by

**50%**

compared to competitive mixed-mode cation-exchange protocols



### Simpler

A defined, generic, 3- or 4-step SPE protocol based on the water wettable Oasis MCX strong Cation-eXchange/reversed-phase sorbent that does not require extensive method development

Allows targeted clean-up of basic compounds



### Cleaner

Simpler method removes 99% of phospholipids compared to protein precipitation, a major cause of matrix effects, ion suppression, shorter column lifetimes, increased MS maintenance, and higher variability in LC-MS quantification

Oasis PRIME MCX is QC'd with this protocol for phospholipid removal



### Faster

Cartridges and plates are designed with a manufacturing optimization to increase flow reproducibility across devices, making processing time more predictable

No conditioning and equilibration steps are required

3-STEP OASIS PRIME MCX PROTOCOL\*

Load	<ul style="list-style-type: none"> <li>Pre-treated sample</li> <li>Diluted 1:1 (v/v) with an aqueous solution of 200 mM Ammonium formate with 4% H<sub>3</sub>PO<sub>4</sub></li> </ul>
Wash 1	<ul style="list-style-type: none"> <li>100% Methanol</li> </ul>
Elute	<ul style="list-style-type: none"> <li>5% NH<sub>4</sub>OH in methanol</li> </ul>

\*The sample is diluted 1:1 with 200 mM Ammonium formate with 4% H<sub>3</sub>PO<sub>4</sub>, making a final concentration of 100 mM Ammonium formate and 2% H<sub>3</sub>PO<sub>4</sub>.

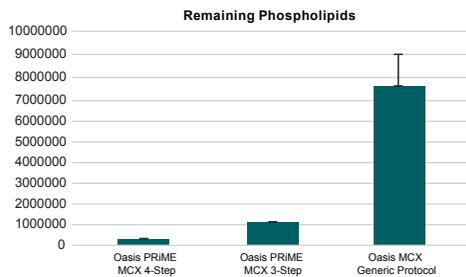
4-STEP OASIS PRIME MCX PROTOCOL\*\*

Load	<ul style="list-style-type: none"> <li>Pre-treated sample</li> <li>Typically acidified by diluting 1:1 (v/v) with 4% H<sub>3</sub>PO<sub>4</sub> in water</li> </ul>
Wash 1	<ul style="list-style-type: none"> <li>100 mM Ammonium formate with 2% formic acid in water</li> </ul>
Wash 2	<ul style="list-style-type: none"> <li>100% Methanol</li> </ul>
Elute	<ul style="list-style-type: none"> <li>5% NH<sub>4</sub>OH in methanol</li> </ul>

\*\*Contains an extra wash step that can be used to remove additional matrix interferences if needed.

3-step method removes **95%** of phospholipids

4-step method removes **98%** of phospholipids compared to Oasis MCX with the generic protocol



For more information visit [waters.com/prime](http://waters.com/prime)

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