

SupelMIP™ SPE – Triazine 10

Product Description:

Molecular imprinted polymers (MIPs) are a class of highly cross-linked polymer-based molecular recognition elements engineered to bind one target compound or a class of structurally related target compounds with high selectivity. Selectivity is introduced during MIP synthesis in which a template molecule, designed to mimic the analyte, guides the formation of specific cavities or imprints that are sterically and chemically complementary to the target analyte(s). It is therefore critical for analysts to use the methodology described below when using this phase. Conventional generic methodologies employed with conventional SPE chemistries (e.g., reversed-phase C18) will yield sub-optimal results when employed with this phase.

The following methods have been developed for the selective extraction of triazine and triazine metabolites from water. The method is highly reproducible and offers triazine recoveries of $\geq 80\%$.

Extraction Procedure: A flow rate of ~0.5 mL/min. is recommended. For analyte elution a flow rate of ~0.2 mL/min. is recommended.

Application Name:	Extraction of triazine and triazine metabolites from water
Analyte:	triazine and triazine metabolites
Sample Matrix:	water
General Comments:	The method was developed for the extraction of atrazine, simazine, propazine, cyanazine, sebutylzine, deisopropylatrazine, deethylatrazine, deethylterbutylzine, prometon and hydroxyterbutylzine. The maximum accepted level for triazines in drinking water is 0.1 µg/L water (EU legislation). Note that terbutylzine analysis is only possible by the indirect analysis of its two metabolites: deethylterbutylzine and hydroxyterbutylzine.
SupelMIP SPE – Triazine 10:	25 mg/10 mL (LRC) (Cat. No. 53208-U)
Sample Pre-treatment:	None
1. Condition/equilibrate cartridge with:	<ul style="list-style-type: none"> ◆ 1 mL methanol ◆ 1 mL ultra-pure water ◆ 1 mL 25 mM ammonium phosphate ($\text{NH}_4\text{H}_2\text{PO}_4$), pH 3 ◆ Do not allow the cartridge to dry during conditioning
2. Load sample: Note: recommended flow rate ~0.5 mL/min.	Apply 10 mL water sample to the cartridge
3. Wash (interference elution): Note: Apply gentle vacuum between each wash step.	<ul style="list-style-type: none"> ◆ 1 mL 0.1 M HCl ◆ 1 mL ultra-pure water ◆ Apply full vacuum through cartridge for 20 min. to remove residual moisture from cartridge. ◆ 1.5 mL dichloromethane ◆ Apply full vacuum through cartridge for 2 min. to remove residual solvent.
4. Analyte elution: Note: recommended flow rate ~0.2 mL/min.	Elute triazines with 3 x 1 mL methanol. Apply a gentle vacuum between each fraction. Evaporate and reconstitute with LC mobile phase prior to analysis.
Recommended Analytical Technique: HPLC or LC-MS	<p>column: Ascentis Express C18, 5 cm x 2.1 mm I.D., 2.7 µm particle size (581303-U)</p> <p>instrument: Applied Biosystems 3200 Q-TRAP</p> <p>mobile phase: 10 mM ammonium acetate (pH unadjusted):acetonitrile (70:30)</p> <p>flow rate: 0.2 mL/min.</p> <p>temp.: 35 °C</p> <p>det.: MS/MS</p> <p>MRM transitions: 1. Atrazine 216.16/174.20 2. Propazine 230.15/146.10 3. Simazine 202.13/124.30</p> <p>ion mode: Positive</p> <p>ion source: Turbospray</p> <p>ion spray voltage 3600 V</p> <p>source temp.: 459 °C</p> <p>collision gas: 50 psi</p> <p>inj.: 2 µL</p>

Product Information:

Description	Pkg. Qty.	Cat. No.
SupelMIP SPE - Clenbuterol		
25 mg/10 mL (LRC)	50	53201-U
SupelMIP SPE - Beta-agonists (class selective)		
25 mg/10 mL (LRC)	50	53202-U
25 mg/3 mL	50	53225-U
SupelMIP SPE – NNAL		
25 mg/10 mL (LRC)	50	53206-U
25 mg/3 mL	50	53203-U
SupelMIP SPE - Riboflavin (Vitamin B2)		
25 mg/10 mL (LRC)	50	53207-U
SupelMIP SPE - Triazine 10		
25 mg/10 mL (LRC)	50	53208-U
SupelMIP SPE - Chloramphenicol		
25 mg/10 mL (LRC)	50	53210-U
25 mg/3 mL	50	53209-U
SupelMIP SPE - Beta-blocker (class selective)		
25 mg/10 mL (LRC)	50	53218-U
25 mg/3 mL	50	53213-U
SupelMIP SPE - TSNA's (NNK, NNN, NAB, NAT)		
50 mg/10 mL (LRC)	50	53221-U
50 mg/3 mL	50	53222-U
SupelMIP SPE - Full Beta-receptors (beta-blockers & beta-agonists)		
25 mg/10 mL (LRC)	50	53223-U
25 mg/3 mL	50	53224-U

SupelMIP SPE developed by MIP Technologies AB

SupelMIP is a trademark of Sigma-Aldrich Co.

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