QuEChERS Multiresidue Pesticide Method for
The Determination of Multiple Pesticides in Wines

Part Number:
- Custom Made Quechers for Wine (50 mL centrifuge tube, 8 grams anhydrous MgSO₄ & 2 grams NaCl)
- 60105-205 (900 mg anhydrous MgSO₄, 300 mg PSA & 150 mg GCB)
- 60183-212 (filter)
- 25002-052130 or 25003-152130 (Hypersil GOLD column)

1. Sample Preparation

   a) Add 20 mL acetonitrile (ACN) and internal standard fluconazole (250µL) to Custom Made extraction tube for Quechers in Wine
   b) Quantitatively add 20.0 mL of wine
   c) Shake for approximately 2 minutes
   d) Centrifuge at 4500 rpm for 5 minutes (use refrigerated centrifuge if available)
   e) Transfer 9.0 mL of top layer and add to 60105-205 (900 mg anhydrous MgSO₄, 300 mg PSA & 150 mg GCB)
   f) Vortex tube for approximately 10 seconds
   g) Open tube and add 3.0 mL of toluene and shake for 1 minute
   h) Centrifuge the tube for 5 minutes @ 4500 rpm
   i) Quantitatively transfer 2.0 mL of supernatant to a glass centrifuge tube
   j) Evaporate to dryness at < 40 °C using N₂
   k) Add 500 µL of acetonitrile 25 µL of benzanilide (2.0 µg/L) surrogate standard for QC and 500 µL of 20 mM ammonium acetate in 1% acetonitrile to the dried extract
   l) Vortex for approximately 5 seconds and filter into autosampler vial using p/n 60183-212 attached to a disposable syringe
2. UHPLC/MS/MS Analysis

UHPLC Conditions:

Column: Hypersil GOLD column 50 x 2.1 mm, 1.9 µm particle cod.25002-052130
Flowrate: 0.5 mL/minute
Injection volume: 10 µL
Column Temperature: 30°C
Analytical Standards: Matrix Matched

Gradient Program:

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<th>Time</th>
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For LC/MS/MS suggested column Hypersil GOLD column 150 x 2.1 mm, 3 µm cod.25003-152130
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Add 20 mL ACN & IS (10 µg/L Fluconazole*) to Custom Made Quechers for Wine

Quantitatively add 20.0 mL of wine

Shake 2 minutes
Centrifuge @ 4500 rpm for 5 minutes

Transfer 9.0 mL extract to 60105-205 tube
Vortex 5 seconds

Add 3 mL toluene to extract
Shake 1 minute
Centrifuge 4500 rpm for 5 minutes

Transfer 2.0 mL to glass centrifuge tube
Reduce to dryness using N₂

Add 0.5 mL ACN
25 µL I.S. (20 µg/L Benzanilide**)
0.5 mL 20 mM NH₄OAc
Filter on 60183-212

Filter and transfer to sample vial for UPLC-MS/MS analysis
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<th>White Wine @ 100 µg/L</th>
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