



## Product: ZeaCLEAN SMART

According to the matrix please select the appropriate method.

### 1 For non fatty matrices recommended e.g. wheat, barley, maize:

- Extract 20 g of sample with 100 mL (80 % methanol : 20 % water) in a blender jar at high speed for five minutes.
- Pass the extract through a plaited filter.
- Add 5 mL of the purified extract to 35 mL PBS buffer (pH 7.2).
- Continue with 4.

### 2 For oil matrices recommended e.g. refined maize oil, olive oil:

- 2 g of oil sample are extracted with 2 mL n-hexane and 20 mL of the extraction solution (methanol/ammonium bicarbonate (10g/L) (9+1)) by stirring or by shaking for at least 30 min.
- Centrifuge for 20 min at 3000xg to provoke phase separation.
- 0.25 mL (represents 0.025 g oil) of the mid layer (oil free) is diluted with 20 mL PBS.
- The diluted extract should be filtered through a 0.2  $\mu$  syringe filter to avoid clogging of the column and to remove precipitations from the extract.
- Continue with 3.

### 3 Affinity chromatography procedure:

- The sample is recommended to be passed through a 0.2  $\mu$  syringe filter to remove residual turbidity.
- Take 1 - 20 mL of the diluted extract (depending on the extraction procedure and the sensitivity of detection) and pass it through the ZeaCLEAN SMART column. A gentle vacuum or overpressure may be used in all steps passing liquid through the column; nevertheless, it is indispensable to maintain a maximum flow rate of 1.5 mL/min. 20 mL diluted extract (using protocol 1) represent 0.5 g matrix. 22.5 mL diluted extract (using protocol 2) represent 0.025 g matrix.
- To wash the column, pass 2 mL of 20% acetonitrile in distilled water through the column.
- Carefully remove the residual solvent by flushing air through the column.

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- Elute with at least 0.4 mL of methanol; let the methanol act on the gel for 5 minutes to break bed material-analyte interaction.
- Dilute or concentrate eluate to your requirements and measure directly by HPLC. By addition of water precipitation could take place, to remove the precipitation the diluted eluate is filtered through a 0.45  $\mu$  syringe filter prior to injection.

**If you have any questions, please contact:** [mycotoxins@LCTech.de](mailto:mycotoxins@LCTech.de)



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