

Technical Datasheet

Analysis Name: Mustard Traces by ELISA

Method Number: NQA-00.8327

Scope of Application: Spices, sauces, dressings, meats, infant formulas, and environmental swabs

Description: This method is based on the use of a Veratox commercial mustard traces detection kit available from Neogen, MI. Mustard proteins are extracted from the sample with a buffered salt solution (PBS) and an extraction additive. Mustard proteins are detected by a sandwich ELISA, using antibodies specific to mustard proteins. The mustard proteins present in the sample will bind to the immobilized capture antibodies. An enzyme-linked detector antibody attaches to the bound mustard protein residue and the addition of a substrate causes a blue coloration to develop when in the presence of the enzyme-linked detector antibody. Addition of stop solution changes the color from blue to light pink when the mustard antigen concentration is low, to purple/blue when there are detectable antigen amounts and remains dark blue if the antigen concentration falls outside the calibration curve. The color intensity is measured using a spectrophotometer.

Sample Weight Required: 50 g

Analytical Platform: Plate reader spectrophotometer

Special information: Original container needed.

Method reports a quantitative result for testing of food products as described in method scope and reports a qualitative result for environmental swabs as “detected” or “not detected” based on a LoD of 100 ng/mL.

Analyte Reported	Alias	Unit of Measure	Limit of Quantification	Reproducibility
Mustard	Mustard	mg/kg	2.5	15%
Mustard	Mustard_Swabs	ng/mL	100	N/A