



NQAC

Nestlé Quality Assurance Center  
Dublin

# 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:** 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”.

Results are expressed as mustard. To express results as protein, multiply the mustard result by 0.26. On average, mustard contains 26% protein. \*

Kit used, Neogen Veratox Mustard (700002561), has identified cross-reactivity and/or interference as brassicaceae family (e.g., canola, rapeseed, broccoli seed etc.), and wild mustard seed.

\*Source: USDA National Nutrient Database for Standard Reference Release 28, #02024 – Spices, mustard seed, ground.



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Analyte Reported	Alias	Unit of Measure	Limit of Quantification/ Theoretical Limit of Detection	Reproducibility
Mustard	Mustard	mg/kg	2.5	15%
Mustard	Mustard_Swabs	µg	0.5	N/A