

# Technical Datasheet

**Analysis Name:** Peanut Traces by ELISA

**Method Number:** NQA-00.8323

**Scope of Application:** Infant formulas, tannin-containing products (i.e. coffee), nutritional drinks, finished food products, rinse water, and environmental swabs.

**Description:**

This method is based on the use of a Veratox commercial peanut traces detection kit available from Neogen, MI. Peanut proteins are extracted from the sample with a buffered salt solution (PBS) and an extraction additive. Peanut proteins are detected by a sandwich ELISA, using antibodies specific to peanut proteins. The peanut proteins present in the sample will bind to the immobilized capture antibodies. An enzyme-linked detector antibody attaches to the bound peanut 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 peanut 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 grams

**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
Total Peanut	Peanut	mg/kg	2.5	15%
Total Peanut	Peanut Swabs	ng/mL	100	N/A