



NQAC

Nestlé Quality Assurance Center
Dublin

Technical Datasheet

Analysis Name: Crustacea Traces by ELISA

Method Number: NQA-00.8331

Scope of Application: Finished food products, Dairy products, Cereal grains, Environmental swabs

Description: Samples are homogenized and crustacea proteins are extracted at 30 °C with buffered salt solution (PBS) that contains an extraction additive. After centrifugation, crustacea proteins are detected by a sandwich ELISA, using antibodies specific to crustacea proteins. Sample extract, reference sample extract and standard solutions are added to the antibody-coated wells. The crustacea proteins present in the sample will bind to the immobilized capture antibodies during incubation. Unbound material is washed away. An enzyme-linked detector antibody is added, which attaches to the bound crustacea protein residue during incubation. After washing, the substrate is added, developing a blue coloration in the presence of the enzyme-linked detector antibody. Addition of stop solution changes the color from blue to light pink when the crustacea 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 at 650 nm. Color development is proportional to the amount of crustacea proteins in the sample. Crustacea traces measured by this method are expressed as their total crustacea equivalence in milligram per kilogram of product.

Sample Weight Required: 50 g

Analytical Platform: Microplate Reader

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".

Results are expressed as crustacea. To express results as protein, multiply the crustacea result by 0.22. On average, crustaceans contain 22% protein. *



NQAC

Nestlé Quality Assurance Center
Dublin

Kit used, Neogen Veratox Crustacea (700002598), has no identified cross-reactivity or interference.

*Source: USDA National Nutrient Database for Standard Reference Release 28, #15270 - Crustaceans, shrimp, raw; #15271 - Crustaceans, shrimp, cooked.

Analyte Reported	Alias	Unit of Measure	Limit of Quantification/ Theoretical Limit of Detection	Reproducibility
Crustaceans	Crustacea	mg/kg	2.5	20%
Crustaceans	Crustacea Swabs	µg	0.5	N/A