

Technical Datasheet

Analysis Name: Egg Traces by ELISA

Method Number: NQA-00.8322

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

Description: Samples are homogenized and egg proteins are extracted at 60 °C with buffered salt solution (PBS) that contains an extraction additive. After centrifugation, egg proteins are detected by a sandwich ELISA, using antibodies specific to egg proteins. Sample extract, reference sample extract and standard solutions are added to the antibody-coated wells. The egg 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 egg 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 egg 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 egg proteins in the sample.

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” based on a LoD of 100 ng/mL.

Analyte Reported	Alias	Unit of Measure	Limit of Quantification	Reproducibility
Whole Egg Powder	Egg	mg/kg	2.5	20%
Whole Egg Powder	Egg Swabs	ng/mL	100	N/A