NQAC
Nestlé Quality Assurance Center

Technical Datasheet

Analysis Name: Detection of Sesame Traces by ELISA

Method Number: NQA-00.8330

Scope of Application: Cookies, spices, sauces, coffee, infant formula, cereals, and environmental swabs

Description: Samples are homogenized and sesame proteins are extracted at 60 °C with buffered salt solution (PBS) that contains an extraction additive. After centrifugation, sesame proteins are detected by a sandwich ELISA, using antibodies specific to sesame proteins. Sample extract, reference sample extract and standard solutions are added to the antibody-coated wells. The sesame 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 sesame 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 sesame 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 sesame proteins in the sample.
Sesame traces measured by this method are expressed as their total sesame equivalence in milligram per kilogram of product.

Sample Weight Required: 50 g

Analytical Platform: Microplate Reader

Special information: Original container needed.

Method is qualitative and results are reported as “detected” or “not detected” based on an LoD of 100 ng/mL.

Analyte Reported	Alias	Unit of Measure	Limit of Quantification	Reproducibility
Sesame	Sesame	mg/kg	2.5	20%
Sesame	Sesame_Swabs	ng/mL	100	N/A

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