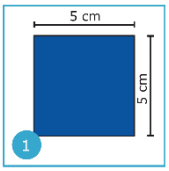
AgraQuant® Allergen Swabbing Kit

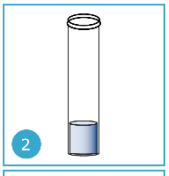
Order #: COOLS0120

With an increasing number of people suffering from severe food allergies, it is increasingly important that food manufacturers address the problem of unintentional allergen content in foods for human consumption. It is vital that potential food allergens are not incorporated into allergen-free foods. To ensure that this does not happen, it is advisable to audit the processes involved in food production as part of an HACCP-based allergen management.
It is important to validate cleaning procedures as part of an Allergen Control Plan, as ineffective cleaning of equipment/surfaces can leave traces of allergenic protein, which may then be carried over into the next product. Quantitative analysis of swabs taken from equipment or surfaces before and after use provides evidence that cleaning procedures have been effective. Swabbing also allows problem areas to be identified so that corrective action can be taken, and helps to prove that allergenic proteins have been removed to below specified levels.

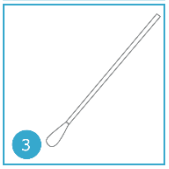
Short instruction:



Mark out (or estimate) a swabbing area of 5 cm x 5 cm; or use the swab directly on problem areas or uneven surfaces, e.g. machinery parts, utensils etc.

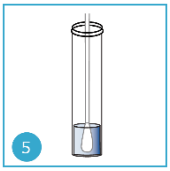


Label the transport tube, and add swabbing solution up to the 1mL line.

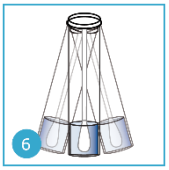


Remove a swab from its packaging, and wet the end by dipping it into the tube.

Wipe the entire swabbing area with the swab, while rotating the tip; first using horizontal movements, then repeating with vertical movements.



Place the swab back in the tube, carefully breaking off the end at the pre-scored break point, so that the tip remains in the tube.



Press on the tamperproof lid, so that it clicks into place. Mix briefly by shaking the tube.

The sample is now ready to be used directly in the ELISA.
For analysis follow the assay procedure from the AgraQuant® Allergen test kits.

Procedure in Detail

1. Ensure that the operator's hands, clothing etc are not contaminated with food materials before swabbing is carried out.
2. Wearing gloves, remove the Swabbing Solution and required number of tubes, caps and swabs from the kit.
3. Mark out (or estimate) a swabbing area of 5cm x 5cm; or use the swab directly on problem areas or uneven surfaces, e.g. machinery parts, utensils etc.
4. Label the transport tube, and add swabbing solution up to the 1ml line.
5. Remove a swab from its packaging, and wet the end by dipping it into the tube.
6. Wipe the entire swabbing area with the swab, while rotating the tip; first using horizontal movements, then repeating with vertical movements.
7. Place the swab back in the tube, carefully breaking off the end at the pre-scored break point, so that the tip remains in the tube.
8. Press on the tamper-proof lid, so that it clicks into place. Mix briefly by shaking the tube.
9. The sample is now ready to be used directly in the ELISA. For analysis follow the assay procedure from the AgraQuant® Allergen test kits. Alternatively the tube can be sent away for analysis.

Sample storage:
Finished swab sample extracts can be stored at 2 – 8°C for up to 24h before performing the assay. If longer storage is required, extracts can be kept frozen at -20°C for up to 2 weeks. Allow the sample extracts to get to room temperature and vortex before applying them to the ELISA plate.

Note: *Different storage conditions apply for gluten swab samples, as gluten tends to precipitate when stored in a cold environment. Gluten swab samples should be stored tightly sealed in a dark place at room temperature (around 20°C) and should then be analyzed within 48 hours.*

Interpretation of Results

The swabbing process is highly variable, due to differences in operator technique and the area swabbed; therefore the amount of protein detected in the swabbing solution may vary considerably. Protein recovery can also vary depending on the allergen in question, and the type of food products present (it can be difficult detecting proteins in complex or highly processed foods); therefore the determination of allergen content from a swabbed area can never be truly quantitative.
It is important to take into consideration that when an allergen is not detected in the swabbing solution, the allergenic protein may still be present at a level below the limit of detection for the assay. It is also possible that the food is processed in such a way that it reduces or prevents a response during the test.

Swabbing solutions do not need to be extracted with the corresponding AgraQuant® Allergen test kit. The finished swab sample extracts can be applied directly to the ELISA plate. Use 100µL of the extract per well.
As the sample is not further diluted during an extraction procedure, different ranges of quantification apply (please refer page 3).

Quantification ranges of Swab Samples

Item Number	Product	Range of Quantification [ng/mL]	Unit of measurement
COKAL0148	AgraQuant Peanut	50 - 2000	Peanut
COKAL0200	AgraQuant Gluten G12	10 - 500	Gluten
COKAL0248	AgraQuant Gluten	8 - 240	Gluten
COKAL0348	AgraQuant Hazelnut	50 - 2000	Hazelnut
COKAL0448	AgraQuant Soy	2 - 50	Soy Trypsin Inhibitor
COKAL0748	AgraQuant Almond	20 - 500	Almond
COKAL0848	AgraQuant Egg White	20 - 500	Egg White Protein
COKAL0948	AgraQuant Walnut	100 - 3000	Walnut
COKAL1048	AgraQuant Beta-Lactoglobulin	0.5 - 20	Beta-Lactoglobulin
COKAL1200	AgraQuant Casein	10 - 300	Casein
COKAL1548	AgraQuant Lupin	100 - 1500	Lupin
COKAL1948	AgraQuant Sesame	100 - 1500	Sesame
COKAL2148	AgraQuant Mustard	100 - 3000	Mustard
COKAL2248	AgraQuant Crustacea	1 - 20	Tropomyosin
COKAL2448	AgraQuant Milk	20 - 500	Milk protein
COKAL2548	AgraQuant Fish	200 -5000	Cod
COKAL2748	AgraQuant Pistachio	50 - 2000	Pistachio
COKAL2848	AgraQuant Lysozyme	1,25 - 12,5	Lysozyme
COKAL2948	AgraQuant Ovalbumin	1,25 - 25	Ovalbumin
COKAL3148	AgraQuant Cashew	100-3000	Cashew

Materials supplied

- 20 x Sterile swabs with break off tips
- 20 x Graduated Transport Tubes
- 20 x Tamper-proof Transport Tube Caps
- 1 x 30 ml Ready to use Swabbing Solution

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Technical and Background Information

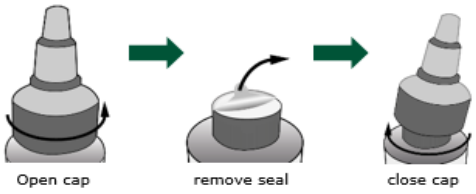
The AgraQuant® Allergen Swabbing Kit is an accessory kit used to collect environmental swab samples from surfaces, processing machinery etc, on which allergenic proteins may be present.
The kit is validated to be used with the range of AgraQuant® Allergen enzyme-linked immunosorbent assays (ELISA). The AgraQuant® Allergen analysis is carried out in the laboratory to quantify the amount of the specific food allergen present in the swabbing solution. Swabs are also validated for use with Romer Labs PCR methods.

Precautions

The kit should be stored at room temperature, preferably 22°C or below. The shelf life of unopened kit components is indicated by the expiry date on the respective labels. Do not use reagents beyond the expiration date.
The reagents contained in this product constitute a very low potential risk to health. Personal Protective Equipment (lab coat and gloves if necessary) should be worn, and skin contact with reagents avoided. Reagents should not be ingested. Contact with skin or eyes should be treated by washing/irrigation. It is also important to be aware of the allergic, toxic or infectious potential of analytical samples.

Note: *Remember to remove any Swabbing Solution residues from surfaces after testing.*

Handling of the new improved AgraQuant® swabbing solution bottles



When opening the bottle for the 1st time, please take off the cap, peel off the seal and screw the cap back on the bottle.

To **open** the bottle just hold the neck of the upper part with your fingers and twist the corrugated screw top counterclockwise.

To **close** the bottle twist the screw top clockwise.

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Warranty
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