

Detection of Diluted Milk by AllerSnap™ Allergen Test

Introduction

Milk proteins can be allergenic and may also be an undesirable ingredient in certain food preparations. The AllerSnap™ High-Sensitivity Allergen Prevention Test can be used to detect milk residues in liquid samples such as rinse water, for cleaning verification.

Equipment, Supplies and Reagents

- AllerSnap™ High-Sensitivity Allergen Prevention Test
- Dilutions of powdered milk (equivalent to rinse water testing for residues)
- Dry block incubator (at 55°C)

Results and Discussion

Milk powder was resuspended in water and a dilution series from 1:1,000 to 1:1 million was created to produce a sample range from 1 to 1,000 ppm. Ten replicates of each dilution level were tested using the AllerSnap™, and incubated up to 15 min at 55°C. The results of testing AllerSnap™ on milk residues is shown in the table below:

Table 1: Detection of milk residues in liquid samples

Dilutions	ppm	Incubation time (min)					
		6	8	10	12	14	15
10 ⁻³	1,000	5	10	10	10	10	10
10 ⁻⁴	100			1	10	10	10
10 ⁻⁵	10				1	9	10
10 ⁻⁶	1					0	10
Number of positive replicates (out of possible 10)							

Conclusion

The AllerSnap™ test detected the presence of milk residues in samples within 15 minutes, with a limit of detection between 1 and 10 ppm. The tests demonstrate that AllerSnap™ is a reliable method for detecting milk residues for post-cleaning verification.