QUALITY PERFORMANCE ANALYSIS REPORT

Evaluation of performance of IGIENTEST-HACCP

Product details	
Name	IGIENTEST-HACCP
Catalogue Numbers (Ref.)	710-0895

Introduction

IGIENTEST-HACCP is a swab for the detection of protein, fat and sugar residues suitable for the check of work surfaces cleaning level.

The test highlights the presence of proteinic residues and of other reducing substances on the analyzed surface. The method, based on the reaction of bicinchoninic acid (reagent A) with cupric sulfate (reagent B) in alkaline conditions, produces the complexation of Cu^{2+} ions with the peptidic bonds of proteins. Such complex takes on a purple colouring directly proportional to the concentration of proteins, fats and sugars which are present on the checked surface.

The device does not directly indicate microbial activity.

Purpose and Methods

The aim of this study was to evaluate the performance of IGIENTEST-HACCP with a series of a standard protein solution. The chromogen formed was assessed with a Spectrophotometer as well.

Testing conditions

Protein concentration corresponding to colour observed with IGIENTEST-HACCP:

Colour	Protein* amount (µg/100 µl)
Green	15-30
Dark grey	60-80
Light purple	120-300
Dark Purple	500-1000

*Bovine Serum Albumin (BSA).

Reaction conditions: 10 min at 15-25°C.

Reading

IGIENTEST-HACCP colorimetric reactions were observed visually and compared to results read Spectrophotometrically at λ = 562 nm.

Reproducibility and Reliability

Test performance was ensured by repeat testing of three batches of IGIENTEST-HACCP. Information of lots involved in the studies and obtained results are presented on the next page.

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IGIENTEST-HACCP		BSA concentration (µg/100 µl)	
Batch number	**Colorimetric reaction**	**Expected result**	**Spectrophotometrically determined result**
03267051	Colourless Green Dark grey Light purple Dark purple	0 15 60 120 500	0 18 65 114 510
12046070	Colourless Green Dark grey Light purple Dark purple	0 15 60 120 500	0 24 63 130 515
03217028	Colourless Green Dark grey Light purple Dark purple	0 15 60 120 500	0 20 70 127 521

Conclusion

IGIENTEST-HACCP used with standard BSA solutions showed 100% reproducibility. IGIENTEST-HACCP and Spectrophotometer agreed well.

References

1. Stoscheck, CM (1990) Quantitation of Protein. Methods in Enzymology 182: 50-69 .
2. Smith, P.K et al.(1985) Measurement of Protein using Bicinchoninic Acid. Analytical Biochem. 150:76-85.
3. Kimar et al. (1985) Fast and Efficient Method for Detection and Estimation of Proteins. Biochem Biophys Res Commun. 131(2):883-91.
4. Gary Peterson (1983) Determination of Total Protein. Methods in Enzymology. 91:95-119.

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