

TSC SwabSURE *Salmonella* spp. Pathogen Swab Validation
and Comparison to Microgen Path-Chek Salmonella

Test Report

Client Details:	Technical Service Consultants
Client Contact Name:	Steven Trenchard
Client Email:	steve.trenchard@tscswabs.co.uk
Name of Test Product:	SwabSURE Salmonella
Date of Report:	16/08/2022

Sample Details

Manufacturer/ Supplier:	Technical Service Consultants
Product Storage Condition:	Refrigerated
Batch Number:	TSC SwabSURE SS-L03 65533 Microgen Path-Chek PC020 65417
Melbec Reference number:	43140.1 (SwabSURE) 43140.2 (Path-Chek)
Expiry:	TSC SwabSURE 2023-06 Microgen Path-Chek 2023-05
Date Product Received:	22/06/2022
Date Test carried out:	26/06/2022(+ve), 5/07/2022(-ve)
Test conditions	
Incubation temp:	36°C +/- 1°C
Incubation time:	18, 24, and 48hrs

Test Results

Test data: TSC SwabSURE (REF 43140.1)

Test data: Microgen Path-Chek vials (REF 43140.2)

TARGET/POSITIVE ORGANISMS – LOW CONCENTRATION

		18HRS RESULT		24HRS RESULT		48HRS RESULT	
Organism	Inoculum (CFUs)	SwabSURE	PathChek	SwabSURE	PathChek	SwabSURE	PathChek
<i>Salmonella enteritidis</i> NCTC 12964	9	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos
<i>Salmonella typhimurium</i> NCTC 12023	7	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos
<i>Salmonella poona</i> NCTC 4840	3	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos
<i>Salmonella nottingham</i> NCTC 7832	7	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos
<i>Salmonella tranoroa</i> NCTC 10252	3	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos
<i>Salmonella typhimurium</i> NCTC 12416	6	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos

Pos = Colour change from Purple to Black

Neg = No colour change (remained Purple).

NON-TARGET/ FALSE POSITIVE ORGANISMS – LOW CONCENTRATION

		18HRS RESULT		24HRS RESULT		48HRS RESULT	
Organism	Inoculum (CFUs)	SwabSURE	PathChek	SwabSURE	PathChek	SwabSURE	PathChek
<i>Citrobacter freundii</i> NCTC 9750	241	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos

Pos = Colour change from Purple to Black

Neg = No colour change (remained Purple).

NON-TARGET/NEGATIVE ORGANISMS – LOW CONCENTRATION

		18HRS RESULT		24HRS RESULT		48HRS RESULT	
Organism	Inoculum (CFUs)	SwabSURE	PathChek	SwabSURE	PathChek	SwabSURE	PathChek
<i>Bacillus subtilis</i> NCTC 10400	46	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Enterococcus faecium</i> NCTC 7171	120	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Escherichia coli</i> NCTC 12241	350	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Enterobacter cloacae</i> NCTC 13380	770	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Serratia marcescens</i> NCTC 13382	1940	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Klebsiella aerogenes</i> NCTC 10006	276	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Yersinia enterocolitica</i> NCTC 12982	80	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Candida albicans</i> NCPF 3255	71	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Pseudomonas aeruginosa</i> NCTC13359	62	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg

Pos = Colour change from Purple to Black

Neg = No colour change (remained Purple).

TARGET/ POSITIVE ORGANISMS – HIGH CONCENTRATION

		18HRS RESULT		24HRS RESULT		48HRS RESULT	
Organism	Inoculum (CFUs)	SwabSURE	PathChek	SwabSURE	PathChek	SwabSURE	PathChek
<i>Salmonella enteritidis</i> NCTC 12964	51	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos
<i>Salmonella typhimurium</i> NCTC 12023	26	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos
<i>Salmonella poona</i> NCTC 4840	36	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos
<i>Salmonella nottingham</i> NCTC 7832	27	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos
<i>Salmonella tranoroa</i> NCTC 10252	33	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos
<i>Salmonella typhimurium</i> NCTC 12416	51	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos	2/2 Pos

Pos = Colour change from Purple to Black

Neg = No colour change (remained Purple).

NON-TARGET/ FALSE POSITIVE ORGANISMS – HIGH CONCENTRATION

		18HRS RESULT		24HRS RESULT		48HRS RESULT	
Organism	Inoculum (CFUs)	SwabSURE	PathChek	SwabSURE	PathChek	SwabSURE	PathChek
<i>Citrobacter freundii</i> NCTC 9750	2410	1/1 Pos	1/1 Pos	1/1 Pos	1/1 Pos	1/1 Pos	1/1 Pos

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NON-TARGET/NEGATIVE ORGANISMS – HIGH CONCENTRATION

		18HRS RESULT		24HRS RESULT		48HRS RESULT	
Organism	Inoculum (CFUs)	SwabSURE	PathChek	SwabSURE	PathChek	SwabSURE	PathChek
<i>Bacillus subtilis</i> NCTC 10400	920	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Enterococcus faecium</i> NCTC 7171	1490	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Escherichia coli</i> NCTC 12241	3500	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Enterobacter cloacae</i> NCTC 13380	7700	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Serratia marcescens</i> NCTC 13382	19400	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Klebsiella aerogenes</i> NCTC 10006	2760	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Yersinia enterocolitica</i> NCTC 12982	1300	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Candida albicans</i> NCPF 3255	710	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg
<i>Pseudomonas aeruginosa</i> NCTC13359	1140	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg	1/1 Neg

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Results Summary

This test shows that SwabSURE product is equivalent to the Path-chek product as results are consistent and give good reproducibility.

One known false positive has turned positive in both Path-Chek & SwabSURE, but this is a common occurrence with this organism and would still lead to investigation maintaining food safety.

Sensitivity and specificity is comparable across brands with only one false positive and all potential background flora not changing colour demonstrating inhibition for upto 48hrs.

Report Authorised By:



Name: Liam Stephens

Position: Technical Manager