

MW570 LISTERIA ISOLATION TRANSWAB®

Listeria Isolation Transwab is designed to be used alongside traditional selective methods to improve the quality system and minimise the risk of Listeria contamination. This simple to use diagnostic test can be applied anywhere in the environment and on foodstuffs where the presence of *Listeria spp.* would be critical. *Listeria spp.* and specifically *Listeria monocytogenes* are rapidly becoming the most important pathogen in the Food Industry; regulatory bodies from around the world are insisting that all food products are Listeria free.

Listeria Isolation Transwab works on an enhanced esculin media formulation. The hydrolysis of esculin gives a distinctive black/brown precipitate. Inhibitors are present in the media which will inhibit the growth of non *Listeria spp*. Only *Listeria spp*. will grow within the media to produce a black/brown precipitate due to esculin hydrolysis (table 3)⁵.

Instructions for Use

- 1. Peel back wrapper to expose both caps.
- 2. Remove swab and sample test site by rubbing swab over as large an area as practicable.
- 3. Remove cap of culture tube with thumb and forefinger and discard.
- 4. Insert swab in culture tube and push down fully to immerse the swab completely.
- 5. Fill in time, date and site details.
- 6. Incubate at 37°C for up to 48 hours.
- 7. Read results. A positive result is indicated by a colour change from Light Brown Agar to Black/Dark Brown commencing around the bud, any colour change is significant. Negative result shows no colour change.
- 8. Record results and dispose of tube.

Shelf Life/Expiry Date

The expiry date is 12 months from the month of manufacture and is printed onto the Tube label, Peel pouch and outer Boxes.

Storage

Listeria Isolation Transwab® should be stored in a dry place between +5°C to +25°C. **Do NOT freeze.**

Sterilisation Method

Listeria Isolation Transwab® has been sterilised by irradiation.

References

- 1. Billie, J. and Doyle, M.P. *Listeria* and *Erysipelothrix*. In: *Manual of Clinical Microbiology*, edited by Balows, A., Hausler Jr., W.J. Hermann, K.L., Isenberg, H.D., and Shadomy, H.J., Washington, DC 20005: American Society for Microbiology, 1992 p. 287-295.
- 2. Newton. L., Hall, S.M., Pelerin, M., and Mclauchlin, J. Listeriosis surveillance: 1991. CDR: 12:R142-R144, 1992.
- 3. Newton. L., Hall, S.M., and Mclauchlin, J. Listeriosis surveillance: 1992. CDR 3:10:R144-R146, 1993.
- 4. Sprenger, R.A. *Hygiene for Management*, Doncaster, England:Highfield Publications, 1991 pp. 3-303.
- 5. Turner, R. A Study of MW570 Listeria Transwab, Personal Communication: 1994 Abtek Biologicals Ltd, Liverpool U.K.

Precautions When Swabbing!

- 1. When sampling an area always use the same swabbing technique.
- 2. Always try to sample the same surface are (100cm² or 200cm²), and be consistent in your sampling.
- The moisture level on the surface should not vary at different sample times. It may be preferable with dry surfaces to wet the swab in a suitable wetting agent such as Ringers, Tween Lecithin Thiosulphate Ringers or Tween Peptone water.

Medical Wire & Equipment

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Battery of Organisms Tested against MW570 Listeria Isolation Transwab®

Organism	C.F.U. in Sample	Colour Change
Listeria monocytogenes NCTC 11994	7	Black
Listeria monocytogenes NCTC 11994	7 19	Black
Listeria monocytogenes NCTC 5214	15	Black
Listeria monocytogenes NCTC 7973		
Listeria ivanovii	10	Black
Listeria innocua NCTC 11288	9	Black
Listeria seeligeri	1 x 10 ⁴	Black
Listeria welshimeri NCTC 11857	1 x 10 ³	Black
Listeria murrayi	1 x 10 ⁵	Black
Listeria grayi	1 x 10 ⁵	Black
Staphylococcus aureus NCTC 6571	4 x 10 ⁸	No Change
Strep faecalis NCTC 775	1.5 x 10 ⁵	No Change
Aeromonas hydrophilla NCTC 1767	1.5 x 10 ⁷	No Change
Bacillus subtilis NCTC 10400	4 x 10 ⁷	No Change
Bacilus pumilis NCTC 10327	1 x 10 ⁷	No change
Bacilus cereus NCTC 10320	2 x 10 ⁶	No change
Escherichia coli NCTC 9001	1 x 10 ⁷	No change
Escherichia coli NCTC 10418	6 x 10 ⁷	No change
Klebsiella pneumoniae	3 x 10 ⁷	No change
Klebsiella aerogenes NCTC 7418	1 x 10 ⁸	No change
Klebsiella aerogenes NCTC 11228	3 x 10 ⁷	No change
Proteus vulgaris NCTC 1683	1 x 10 ⁸	No change
Proteus mirabilis NCTC 841	5 x 10 ⁸	No change
Citrobacter freundii	1.2 x 10 ⁸	No change
Citrobacter diversus	3 x 10 ⁶	No change
Enterobacter agglomerans	1.1 x 10 ⁸	No Change
Morganella morgani	1.4 x 10 ⁸	No Change
Serratia liquefaciens	1 x 10 ⁸	No Change
Serratia marcescens	1 x 10 ⁷	No Change
Yersinia enterolytica	1 x 10 ⁷	No Change
Enterobacter cloacae	3×10^7	No Change
Salmonella typhimurium NCTC 74	3 x 10 ⁸	No Change
Shigella flexneri	8 x 10 ⁶	No Change
Psuedomonas aeruginosa	9 x 10 ⁷	No Change
Pseudomonas putida NCTC 10936	1.5 x 10 ⁷	No Change
Pseudomonas fluorescens NCTC 10038	1 x 10 ⁷	No Change
Pseudomonas maltophillia NCTC 102157	6 x 10 ⁷	No Change
Pseudomonas vesicularis NCTC 10900	4×10^{6}	No Change
Pseudomonas cepacia NCTC 10743	3.5 x 10 ⁷	No Change
Pseudomonas putrefaciens NCTC 10735	3 x 10 ⁶	No Change
Candida albicans	2 x 10 ⁶	No Change

Example of surface area to be swabbed

