Product Information

Solus Agar-OA Medium (AGAR-OA020S)

Description

Solus Agar-OA (according to the formulation of Ottaviani and Agosti) is a selective medium for the isolation and presumptive identification of *Listeria monocytogenes* from foodstuffs and related materials as described in ISO 11290-1:1997.

Lithium chloride in the base medium and supplementary antimicrobial compounds Ceftazidime, Polymyxin, Nalidixic acid and amphotericin provide the medium's selectivity. Chromogenic activity is as a result of a chromogenic substrate for the detection of the β-glucosidase enzyme, common to all *Listeria spp.* and to a few strains of Enterococci and Bacilli.

The specific differential activity of this agar is obtained with a proprietary lecithin substrate for the detection of the phospholipase enzyme that will only be present in the *L. monocytogenes* colonies growing on this media. This enzyme activity will result in a halo of precipitation surrounding the target colonies.

With the combination of both the chromogenic and phospholipase enzyme reactions, it is possible to differentiate *Listeria monocytogenes* (blue colonies surrounded by an opaque halo) from other *Listeria* spp (blue colonies without an opaque halo).

Formulation

	g/litre
Meat peptone	18.0
Tryptone	6.0
Yeast extract	10.0
Lithium chloride	10.0
Sodium chloride	5.0
Disodium hydrogen orthophosphate anhydrous	2.5
Sodium pyruvate	2.0
Glucose	2.0
Glycerophosphate	1.0
Magnesium sulphate	0.5
5-bromo-4-chloro-3-indolyl-β-D-glucopyranoside	0.05
Agar	13.5

	mg/litre
Naladixic Acid	20
Ceftazidime	20
Polymyxin B	10
Amphotericin	10
Phosphatidylinositol	~600

pH 7.2 +/- 0.2

Appearance
Finished medium: opaque, cream-yellow gel

Hazard classification
NR, Not regulated

Storage
Store at 2-8°C.

Inoculation

Surface inoculation - streak out to single colonies. This medium is selective and so a heavy inoculum can be used.

Incubation
37°C aerobically for 48 hours.

Minimum Q.C. organisms

Listeria monocytogenes NCTC 11994
Listeria monocytogenes NCTC 10527
Escherichia coli ATCC 25922 (Inhibited)
Enterococcus faecalis ATCC 29212 (Inhibited)

Interpretation

Organism	Colony size (mm)	Colony shape	Colony Colour
Listeria monocytogenes	1-2	Round, regular	Blue to blue-green, surrounded by opaque halo
Listeria spp.	1-2	Round, regular	Blue to blue-green, without opaque halo

Isolates presumptively identified as *Listeria* spp. and *Listeria monocytogenes* must be subjected to further biochemical tests to confirm their identity. Some strains of *Listeria ivanovii* may demonstrate lecithinase activity.

References
ISO 11290-1:1997 Microbiology of food and animal feeding stuffs - Horizontal method for the detection of *Listeria monocytogenes* - Part 1: Detection method. Incorporating Amendment 1.

ISO/TS 11133-2:2003. Microbiology of food and animal feed stuffs- Guidelines on preparation and production of culture media – Part 2: Practical guidelines on performance testing of culture media.

Solus Scientific Solutions Ltd
9 Mansfield Networkcentre, Millennium Business Park, Concorde Way, Mansfield, Nottinghamshire NG19 7JZ
Tel +44 (0)1623 429701 **Fax** +44 (0)1623 620977 **Email** enquiries@solusscientific.com
Web www.solusscientific.com
Registered Address: East Kilbride Laboratory, Torus Building, Rankine Avenue, East Kilbride, Glasgow, Lanarkshire G75 0QF Company Reg. No. SC361616, Registered in Scotland VAT No 982 2304 24