Technical Data Sheet

Tryptic Soy Contact Agar + LTH – RT

Ordering number: 1.46200.0020

Tryptic Soy Contact Agar + LTH - RT is designed for the determination of the total aerobic microbial count on dry, sanitized surfaces and personnel in controlled environments and for **R**oom **T**emperature storage.

Ten contact plates each with a diameter of 55 mm are single-bagged in transparent, hydrogen peroxide impermeable sleeves (non-irradiated). The sleeves consist of polypropylene with a barrier of PE-EVOH-PE.

The formulation of the basic medium (Soybean-Casein Digest Agar) is prepared according to the recommendations of the current European, Japanese and United States Pharmacopoeia (EP, 2.6.12.; JP, 4.05 and USP, 61) and supplemented with neutralizers.

Further plate designs are available with the identical media formulation:

TSA Contact + LTH - RT+ (article number 146554): 55 mm lockable contact plates, single-bagged; intended for microbial monitoring of dry, sanitized surfaces and personnel in controlled environments. The plate design allows aerobic, microaerophilic and anaerobic incubation.

Mode of Action

Tryptic Soy Agar (TSA, Soybean Casein Digest Agar) is a complex medium for cultivation and isolation of a wide range of bacteria, yeasts and molds. Internal studies confirmed the neutralization efficiency of the neutralizers lecithin, polysorbate (Tween®) 80 and histidine for disinfectants containing the following active agents (based on tests with TSA plates + LT; article number 146050):

- Alcohol (70 % ethanol or isopropyl alcohol)
- Dichloroisocyanurate
- Glucoprotamine
- Hydrogen Peroxide
- Peracetic acid

Typical Composition

Casein Peptone	15 g/l
Soy Peptone	5 g/l
NaCl	5 g/l
Polysorbate (Tween®) 80	5 ml/l
Lecithin	0.7 g/l
Histidine	0.5 g/l
Agar	18 g/l

The appearance of the medium is clear and yellowish. The pH value is in the range of 7.1-7.5. The medium can be adjusted and/or supplemented according to the performance criteria required.

Application and Interpretation

The TSA contact plates are utilized for hygiene monitoring (environmental monitoring) on surfaces and personnel in controlled environments, even in the presence of residues of disinfectants.

Each plate is provided with a label including a data matrix code for paperless plate identification. The code consists of a two-dimensional 20-digit serial number, which harbors the following information:

digits 1-3: here code 863 (corresponds to article 146200); digits 4-9: lot number; digits 10-14: batch specific individual number; digits 15-20: expiration date (YY/MM/DD).

Please check each agar plate before using it on sterility and pay attention to aseptic handling in order to avoid false positive results.

According to ISO 14698 the plates are opened and the agar surface is pressed on the dry surface to be tested for some seconds with a steady pressure. Similar recommendations are included in the PDA technical report No.13. Afterwards the plates are closed and transferred to an incubator. Residues of culture medium should be removed from the surface after sampling.

Several recommendations are given by different guidelines for incubation: according to USP <1116> the plates used for environmental monitoring should be incubated between 20 and 35 °C for not less than 72 hours. According to the FDA Aseptic Guide the plates for determination of the total aerobic bacterial count should be incubated at 30 to 35 °C for 48 to 72 hours, while the plates for determination of the total yeast and mold count should be incubated at 20 to 25 °C for 5 to 7 days. Individual incubation conditions can be chosen and should be validated at the application side.

Finally the number of CFU per plate is examined.

Grown colonies are recommended to be identified.

Storage and Shelf Life

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +15 °C to +25 °C.

Condensation can be prevented by avoiding quick temperature shifts and mechanical stress.

The testing procedures as described on the CoA can be started up to the expiry date printed on the label.

Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

Quality Control

Control Strains	ATCC #	Inoculum CFU	Incubation	Expected Result Recovery in %
Staphylococcus aureus	6538	10-100	20-24 h at 30-35°C	70-200 %
Escherichia coli	8739	10-100	20-24 h at 30-35°C	70-200 %
Pseudomonas aeruginosa	9027	10-100	20-24 h at 30-35°C	70-200 %
Bacillus subtilis	6633	10-100	20-24 h at 30-35°C	70-200 %
Candida albicans	10231	10-100	44-48 h at 20-25°C	50-200 %
Aspergillus brasiliensis	16404	10-100	70-74 h at 20-25°C	50-200 %

Please refer to the actual batch related Certificate of Analysis.

Literature

EU GMP Medicinal Products for Human and Veterinary use (2008): Annex1 Manufacture of Sterile Medicinal Products.

European Pharmacopoeia 8.0 (2014): 2.6.12. Microbial examination of non- sterile products (total viable aerobic count).

Guidance for Industry (2004): Sterile Drug Products Produced by Aseptic Processing - Current Good Manufacturing Practice.

ISO 14698-1:2003: Cleanrooms and associated controlled environments - Biocontamination control - Part 1: General principles and methods.

Japanese Pharmacopoeia 16th edition (2011): 4.05 Microbial Limit Test.

PDA Technical Report No. 13 (2014 Revised): Fundamentals of an Environmental Monitoring Program.

United States Pharmacopoeia 38 NF 33 (2015): <61> Microbiological Examination of Non-Sterile Products: Microbial Enumeration Tests; <1116> Microbiological Control and Monitoring of Aseptic Processing Environments.

Ordering Information

Product	Cat. No.	Pack size
Tryptic Soy Contact Agar + LTH - RT	1.46200.0020	20 x 55 mm plates
Tryptic Soy Contact Agar + LTH – RT+	1.46554.0020	20 x 55 mm plates
Tryptic Soy Agar + LT - ICR	1.46050.0020	20 x 90 mm plates
Tryptic Soy Agar + LT - ICR	1.46050.0120	120 x 90 mm plates

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