Technical Data Sheet

# ReadyPlate™ DG 18 (Dichloran Glycerol Chloramphenicol) Agar acc. ISO 21527-2

Ordering number: 1.46161.0020 / 1.46161.0120

For enumeration of yeast and moulds of products with less water activity.

This culture medium complies with the specifications given by ISO 21527-2.

## Mode of Action

By reducing the water activity from approx. 0.99 to 0.95 with 18 % (w/w) glycerol and addition of chloramphenicol growth of bacteria is prevented. The inclusion of dichloran serves to inhibit the rapid spreading of mucoraceous fungi and restricts colony sizes of other genera, easing the colony count.

## Typical Composition

| Specified by ISO 21527-2:2008 | | ReadyPlate™ DG18 | |
|---|---|---|---|
| Casein Enzymatic Digest | 5 g/l | Casein Enzymatic Digest | 5 g/l |
| D-Glucose | 10 g/l | Glucose | 10 g/l |
| $KH_2PO_4$ | 1 g/l | $KH_2PO_4$ | 1 g/l |
| $MgSO_4$ x 1 $H_2O$ | 0.5 g/l | $MgSO_4$ | 0.5 g/l |
| Dichloran | 0.002 g/l | Dichloran | 0.002 g/l |
| Chloramphenicol | 0.1 g/l | Chloramphenicol | 0.1 g/l |
| Agar | 12-15 g/l | Agar-Agar | 15 g/l |
| Glycerol, anhydrous | 220 g/l | Glycerol, anhydrous | 220 g/l |
| Water | 1000 ml/l | Water | 1000 ml/l |
| pH at 25 °C | 5.6 ± 0.2 | pH at 25 °C | 5.6 ± 0.2 |

## Application and Interpretation

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 762 (corresponds to article 146161); 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 on sterility before using it and pay attention to aseptic handling in order to avoid false positive results.

The culture medium is incubated aerobically at 24-26 °C for 5 to7 days.

Colonies or propagules are counted and if required doubtful colonies can be examined with a (stereo-) microscope to distinguish yeast colonies from possible bacterial colonies.

The number of yeast and molds per g or ml may be counted and calculated separately if necessary.

## 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

| Function | Control strains | Incubation | Reference medium | Method of control | Expected results |
|---|---|---|---|---|---|
| Productivity | *Wallemia sebi* ATCC 42694 | 5 days at 24-26 °C | Sabouraud Dextrose Agar (SDA) | Quantitative | Recovery ≥ 50 %, characteristic colony/ propagules according to each species |
| | *Saccharomyces cerevisiae* ATCC 9763 | | | | |
| | *Aspergillus restrictus* ATCC 42693 | | | | |
| | *Eurotium rubrum* ATCC 42690 | | | | |
| Selectivity | *Escherichia coli* ATCC 8739 | 5 days at 24-26 °C | Sabouraud Dextrose Agar (SDA) | Qualitative | Total inhibition |
| | *Escherichia coli* ATCC 25922 | | | | |
| | *Bacillus subtilis* subsp. *Spizizenii* ATCC 6633 | | | | |

Please refer to the actual batch related Certificate of Analysis.

The performance test is in accordance with the current version of EN ISO 11133 A recovery rate of 50 % is equivalent to a productivity value of 0.5.

## Literature

Hocking, A.D. and Pitt, J. I. (1980): Dichloran-glycerol medium for enumeration of Xerophilus fungi from low-moisture foods. Appl Environ. Microbiol. **39**: 488-492.

ISO 21527-2:2008: Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of yeasts and moulds – Part 2: Colony count technique in products with water activity less than or equal to 0,95.

ISO 11133:2014: Microbiology of food and animal feed and water – Preparation, production, storage and performance testing of culture media.

## Ordering Information

| Product | Cat. No. | Pack size | Other pack sizes available |
|---|---|---|---|
| ReadyPlate™ DG 18 Agar ISO 21257 | 1.46161.0020 | 20 x 90 mm | 120 x 90 mm |
| ReadyPlate™ CT DG 18 Agar ISO 21257 | 1.46266.0020 | 20 x 55 mm | |
| GranuCult™ DG 18 Agar ISO 21257 | 1.00456.0500 | 500 g | |

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