

DATA SHEET

SCHWÖRM AGAR

APPLICATION

Schwörm agar is a semi-solid nutrient-rich medium that allows motile *Salmonella* to swarm.

FORMULATION

| |
|-----------------|
| Meat broth |
| Beef extract |
| Peptone |
| Inorganic salts |
| Glucose |
| Agar |
| pH 7,6 ± 0,2 |

PRINCIP

The medium is used with or without phase inversion antisera to determine the H-phases of *Salmonella* (the Sven Gard method)¹.

A *Salmonella* bacterium expresses usually only one H antigen at a time, e.g. *Salmonella* Typhimurium (1,4,[5],12:i:1,2) either expresses the phase 1 H antigen H:i or the phase 2 H antigen H:1,2. In a *Salmonella* culture usually only one of the phases are dominating. This dominating phase is called the first phase and can be determined on Schwörm agar without antisera. The second phase is determined by adding phase inversion antisera against the identified phase to the Schwörm agar which allows the bacteria to express the phase 2 H antigen and swarm.

PROCEDURE

DAY 1:

Melt the agar at 105 °C and pour into a petri dish. After solidifying of the agar inoculate the plate in the center with a 1 µL loop full of fresh *S. Typhimurium* culture without breaking the surface of the medium and incubate the plate at 35,0 °C ± 2,0 °C overnight.

DAY 2:

Determine the first phase by performing slide agglutination with multi-phase antisera, phase antisera and factor antisera. Use culture from the periphery of the swarm for the agglutination. If the first phase is H:i melt Schwörm agar as described above. Apply 2 drops (~ 100 µl) SG2 antisera to a petri dish (6 cm) before the 10 ml cooled (approximately 45 °C) Schwörm agar is added and mix with a sterile loop.

Leave the plate on a leveled table at room temperature for solidification (~ 20 min.).

Inoculate the Schwörm agar with culture from a solid agar plate as described above and incubate the plate at 35,0 °C ± 2,0 °C overnight.

DAY 3:

Use culture from the periphery of the swarm to determine the phase 2 H antigens by slide agglutination – in this case H:1,2.

QUALITY CONTROL

| Referencestrain | Growth | Color |
|--|--------|-------|
| <i>Salmonella</i> Typhimurium ATCC 14028 | swarm | white |
| <i>Salmonella</i> Enteritidis ATCC 13076 | swarm | white |

APPERANCE

Yellow hazy color. Semi-solid media.

STORING AND SHELF LIFE

The media must be stored at 2-8 °C and have a shelf life of 6 months from production.

PRECAUTIONS

Only for professional use and for the purpose of *in vitro* diagnostic. **IVD**

Do not use the product if there are signs of microbial contamination, discoloration, drying-out or other signs of degradation. Cultured products must be discarded after the same rules as for other clinical waste.

REFERENCES

1. Gard, S. Das Schwärmphänomen in der *Salmonella*-gruppe und seine praktische Ausnützung. Zeit. f. Hyg. Inf. Krankh. 1938, 120;615-619.

PRODUCTS

| | |
|----------------|---------------------|
| Item no. 1038 | Schwörmagar – 20 mL |
| Item no. 82491 | Schwörmagar – 60 mL |
| Item no. 29565 | Schwörmagar – 0,2 L |
| Item no. 62411 | Schwörmagar – 0,2 L |

QUALITY

SSI Diagnostica is quality assured and certified according to ISO 13485. Certificates of analysis and MSDS can be downloaded at www.ssidiagnostica.com.



INFORMATION AND ORDERING

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