

Antibiotic Sulfonamide Sensitivity-test Agar (ASS Agar)

ASS agar (D.S.T. Agar)

For testing the sensitivity of microorganisms towards antibiotics and sulfonamides using the agar diffusion method.



*in vitro diagnosticum –
For professional use only*



Antibiotic sulfonamide sensitivity-test agar meets the requirements set for sensitivity test agars by the "Expert Committee on Antibiotics" of the World Health Organisation (WHO).

This culture medium can also be employed for testing fastidious microorganisms such as pneumococci, *Listeria*, *Neisseria*, *Erysipelothrix* etc. ANSORG et al. (1975) and SØGAARD et al. (1978) demonstrated that it could be successfully used to detect antibacterial substances in urine, renal tissue and milk.

Methods for accurate quantitative sensitivity determination have been developed by ERICSSON and SHERRIS (1971) on behalf of the WHO and the Deutsches Institut für Normung (DIN 58940) (German Institute of Standardisation).

Principle

Microbiological method.

Mode of Action

The composition of the culture medium provides favourable growth conditions. Buffering of the medium prevents pH changes from interfering with diffusion. The zones of inhibition are clearly defined. The activities of the antibiotics or sulfonamides are not inhibited or antagonized by any of the constituents of the medium.

Typical Composition (g/litre)

Peptone 20.0; D(+)-glucose 2.0; sodium chloride 3.0; di-sodium hydrogen phosphate 2.0; sodium acetate 1.0; adenine 0.01; guanine 0.01; uracil 0.01; xanthine 0.01; agar-agar 12.0.

Preparation and Storage

Usable up to the expiry date when stored dry and tightly closed at +15 to +25 °C. Protect from light.

After first opening of the bottle the content can be used up to the expiry date when stored dry and tightly closed at +15 to +25 °C.

Suspend 40g/litre, autoclave (15 min at 121°C), pour plates.

pH: 7.2 ± 0.2 at 25 °C.

The plates are clear and yellowish-brown.

Ready-to-use

Usable up to the expiry date when stored at +12 to +15 °C.

The plates are clear and yellowish-brown.

Specimen

e.g. Isolated bacteria from urine. Clinical specimen collection, handling and processing, see general instructions of use.

Experimental Procedure and Evaluation

Perform the sensitivity testing as directed in the standard methods.

See also *General Instruction of Use*
Warnings and precautions see *ChemDAT®*
(www.chemdat.info)

Zones of inhibition can be clearly seen and their diameters are evaluated either qualitatively or quantitatively. In the case of quantitative evaluation, the zones are measured and recorded.

Literature

ANSORG, R., ZIPPEL, H., u. THOMSEN, R.: Bedeutung des Nachweises antibakterieller Stoffe in Urin für die bakteriologische Diagnostik und die Kontrolle der Chemotherapie von Harnwegsinfektionen. – *Zbl. Bakt. Hyg., I. Orig., A 230*, 492-507 (1975).

DIN Deutsches Institut für Normung e.V.: Methoden zur Empfindlichkeitsprüfung von bakteriellen Krankheitserregern (außer Mykobakterien) gegen Chemotherapeutika.

– **DIN 58940.**

ERICSSON, H.M., a. SHERRIS, J.C.: Antibiotic sensitivity testing. Report of an international collaborative study. – *Acta path. microbiol. scand. B. Suppl. 217*, 1971.

LINZENMEIER, G., NAUMANN, P., RITZERFELD, W., u. KNOTHE, H.: Auswahl von Chemotherapeutika zur Resistenzbestimmung schnell wachsender Bakterien (Minimalforderung). – *Dtsch. med. Wschr.* **97**, 303-304 (1972) oder *Ärztl. Lab.* **18**, 169-172 (1972).

SØGAARD, H., ANDERSEN, M., HUUSOM, R.: En folsom metode til pavisning af sulfonamider i nyrevaev og mælk. – *Dansk. Vet. Tidsskr.*, **61**; 593-595 (1978).

Ordering Information

Product	Merck Cat. No.	Pack size
Antibiotic Sulfonamide Sensitivity-test Agar (ASS Agar)	1.05392.0500	500 g
Merckoplate® ASS agar (D.S.T. Agar)	1.10410.0001	20 plates

Quality control

Test strains	Growth	Inhibition zones with
<i>Escherichia coli</i> ATCC 25922	good	Ampicillin
<i>Staphylococcus aureus</i> ATCC 25923	good	Tetracyclin, Trimethoprim-Sulphamethoxazol, Gentamicin, PolymyxinB
<i>Pseudomonas aeruginosa</i> ATCC 27853	good	Gentamicin
<i>Enterococcus faecalis</i> ATCC 33186	good	Trimethoprim-Sulphamethoxazol