

MUELLER HINTON AGAR WITH HORSE BLOOD AND NAD

Intended Use

Mueller Hinton Agar with 5% horse blood and 20 mg/L NAD is recommended for testing *Streptococcus* spp., *Haemophilus* spp. and some other fastidious organisms.

Principles of the Procedure

Beef Extract and Acid Hydrolysate of Casein provide nitrogen, vitamins, carbon, and amino acids in Mueller Hinton Agar with horse blood and NAD. Starch is added to absorb any toxic metabolites produced. Agar is the solidifying agent.

Supplementation with horse blood (5%) provides additional growth factors for fastidious microorganisms, and aids in determining hemolytic reactions.

Nicotinamide adenine dinucleotide (NAD) is required for growth of *Haemophilus* and *Neisseria* spp.

Formula / Liter

Beef Extract.....	2.0 g
Acid Hydrolysate of Casein.....	17.5 g
Starch.....	1.5 g
Agar.....	17.0 g

Supplements / Liter

Defibrinated horse blood.....	50 ml
NAD.....	.02 g

Final pH 7.3 ± 0.1 at 25°C

Precaution

For Laboratory Use.

Directions

1. Suspend 38 g of the Mueller Hinton II Agar in one liter of purified water.
2. Heat with frequent agitation and boil for one minute to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes. Cool to room temperature.
4. Aseptically add 50 ml defibrinated horse blood and 10 ml NAD solution. Mix well and dispense immediately.
5. Check prepared Mueller Hinton Agar to ensure the final pH is 7.3 ± 0.1 at 25°C.

Quality Control Specifications

Prepared Appearance: Prepared medium is medium is opaque and red.

Expected Cultural Response: Prepare, inoculate and dispense antibiotic disks following the procedure described by EUCAST. The cultures listed should have middle range zone sizes of the concentration tested.

Microorganism	Growth
<i>Haemophilus influenzae</i> NCTC 8468	(+)
<i>Streptococcus pneumoniae</i> ATCC 49619	(+)

Results

Microorganism: *Streptococcus pneumoniae* ATCC 49619

antibiotic	ug	Inhibition zones according to EUCAST
Ampicillin	2	25-31
Benzylpenicillin	1 unit	15-21
Cefaclor	30	25-31
Cefepime	30	31-37
Cefotaxime	5	28-34
Cefpodoxime	10	29-35
Ceftriaxone	30	32-38
Cefuroxime	30	28-34
Chloramphenicol	30	24-30
Ciprofloxacin	5	22-28
Clindamycin	2	22-28
Doripenem	10	31-37
Ertapenem	10	28-34
Erythromycin	15	26-32
Imipenem	10	34-42
Levofloxacin	5	21-27
Linezolid	10	23-29
Meropenem	10	30-38
Minocycline	30	25-31
Moxifloxacin	5	24-30
Norfloxacin	10	18-24
Ofloxacin	5	18-24
Oxacillin	1	8-14
Rifampicin	5	26-32
Teicoplanin	30	18-24
Telithromycin	15	27-33
Tetracycline	30	28-34
Tigecycline ⁵	15	24-30
Trimethoprim-sulfamethoxazole	1.25-23.75	20-26
Vancomycin	5	17-23

Microorganism: *Haemophilus influenzae* NCTC 8468

antibiotic	ug	Inhibition zones According to EUCAST
Amoxicillin	10	21-27
Amoxicillin-clavulanic acid	20-10	24-30
Ampicillin	2	19-25
Ampicillin-sulbactam	10-10	24-30
Cefaclor	30	24-30
Cefepime	30	29-35
Cefixime	5	27-33
Cefotaxime	5	29-35
Cefpodoxime	10	28-34
Ceftibuten	30	29-35
Ceftriaxone	30	33-41
Cefuroxime	30	25-31
Chloramphenicol	30	30-38
Ciprofloxacin	5	31-39
Doripenem	10	26-32
Ertapenem	10	27-33
Erythromycin	15	12-18
Imipenem	10	25-31
Levofloxacin	5	32-38
Meropenem	10	28-34
Moxifloxacin	5	29-35
Nalidixic acid	30	27-33
Ofloxacin	5	30-36
Phenoxymethylpenicillin	10	15-21
Rifampicin	5	20-26
Tetracycline	30	28-34
Trimethoprim- sulfamethoxazole	1.25-23.75	26-34

Packaging cat No. 201370 plates

Storage

Store the plates at 6 -12°C.

Expiration

45 days.



Graso Biotech
Krağ 4A, 83-200 Starogard Gdański
Customer Service: 058 562 30 21, 058 562 56 61 do 64 wew. 30,

