

CM 22413 - SOYABEAN CASEIN DIGEST AGAR PLATE W/ TWEEN 80, SOYA LECITHIN & b - LACTAMASE MIXTURE (g - irradiated) (Triple Pack)

INTENDED USE

Recommended for determining efficiency of containers, equipment surfaces, water miscible cosmetics and for inactivation of penicillins, cephalosporins of first, second, third and fourth generation and penems.

PRODUCT SUMMARY AND EXPLANATION

Soyabean Casein Digest Agar plate with beta-Lactamase is especially designed for the inactivation of a broad range of beta-Lactam antibiotics. It is used for environmental and antibiotic sterility testing.

The media are gamma irradiated in the packaging material to assure a reduction of the microbial load potentially present in the medium, on the dishes, and on the packaging materials. Gamma-irradiation of the product is indicated by an orange to red color of the irradiation indicator stripe on the inner label.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzyme hydrolysate	15.000
Agar	15.000
Papaic digest of Soybean meal	5.000
Sodium chloride	5.000
Tween 80	5.000
Soya lecithin	0.700
Beta-lactamase mixture	500 IU/Ltr

PRINCIPLE

The combination of casein enzymic hydrolysate and papaic digest of soyabean meal makes these media nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Sodium chloride maintains the osmotic balance in both the media. beta-Lactamase enzyme breaks the beta-Lactam ring of antibiotic, deactivating the molecule's antibacterial properties. Soya lecithin and Tween 80 are added to the formulation to neutralize germicidal or disinfectant residues. Neutralizer of these residues reduce the inhibitory effect which ultimately results in the lowering of microbial count. Quaternary ammonia compounds are neutralized by lecithin, while phenolic disinfectants and hexachlorophene are neutralized by Tween 80. Together lecithin and Tween 80 neutralize ethanol.

INSTRUCTION FOR USE

Either streak, inoculate or surface spread the test inoculum aseptically on the plate. Alternatively, these plates can also be used as settle plates for environmental monitoring.

QUALITY CONTROL SPECIFICATIONS

Appearance	:	Light amber color, clear to slightly opalescent gel.
Quantity of Medium	:	18 ± 2ml of medium in 55 mm plates.
pH (at 25°C)	:	7.3 ± 0.2
Dose of irradiation:	:	10-25 kGy
Sterility Check	:	Passes release criteria

INTERPRETATION

GrowthPromotionTest of as such plates was carried out and growth was observed after incubation at 30-35°C for < = 3 days. Simultaneously growth promotion test was carried out on plates which were seeded with 100 mcg/ml of Benzyl Penicillin.

Growth Promotion Test

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Bacillus subtilis	6633	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
Staphylococcus aureus	25923	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
Escherichia coli	25922	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
Pseudomonas aeruginosa	27853	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
Streptococcus pneumonia	6305	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
Salmonella typhimurium	14028	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
Enterococcus faecalis	29212	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
Candida albicans	10231	50-100	Luxuriant	>=70%	20-25°C	<=5 days
Aspergillusbrasiliensis	16404	50-100	Luxuriant	>=70%	20-25°C	<=5 days

Cultural Response

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100				
w/o antibiotic			Luxuriant	>=70%	30-35°C	18-24 hours
w/ Cephalothin			Luxuriant	>=70%	30-35°C	18-24 hours
w/ Cefotaxime			Luxuriant	>=70%	30-35°C	18-24 hours
w/ Ceftazidime			Luxuriant	>=70%	30-35°C	18-24 hours
w/ Imipenem			Luxuriant	>=70%	30-35°C	18-24 hours
w/ Ertapenem			Luxuriant	>=70%	30-35°C	18-24 hours
w/ Meropenem			Luxuriant	>=70%	30-35°C	18-24 hours
Staphylococcus aureus	25923	50-100				
w/o antibiotic			Luxuriant	>=70%	30-35°C	18-24 hours
w/ Penicillin			Luxuriant	>=70%	30-35°C	18-24 hours
w/ Cephalothin			Luxuriant	>=70%	30-35°C	18-24 hours
w/ Cefotaxime			Luxuriant	>=70%	30-35°C	18-24 hours
w/ Ceftazidime			Luxuriant	>=70%	30-35°C	18-24 hours
w/ Imipenem			Luxuriant	>=70%	30-35°C	18-24 hours
w/ Ertapenem			Luxuriant	>=70%	30-35°C	18-24 hours
w/ Meropenem		Luxuriant	>=70%	30-35°C	18-24 hours	

PACKAGING:

Triplelayeredpacking containing 5 No. of plates with one silica gel desiccant bag packed inside it.

STORAGE

Onreceipt, store the plates at 15–30 °C. Avoid freezing and overheating. Do not open until ready to use. Prepared plates stored in their original sleeve wrapping until just prior to use may be inoculated up to the expiration date and incubated for recommended incubation times. Allow the medium to warm to room temperature before inoculation.



Product Deterioration: Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Abraham EP, Chain E (1940). "An enzyme from bacteria able to destroy penicillin". Nature 46: 837
2. Wright and Welch, 1959-60, Antibiotics Ann., 61.

QTY.

Quantity

LOT/
B. NO.

Lot / Batch Number



Temperature Unit



Manufacturer



Best Before

GMP

Certification of
Good Manufacturing Practices

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For Lab Use Only

