

## TMP 049GT - SOYABEAN CASEIN DIGEST AGAR PLATE W/ $\beta$ -LACTAMASE ( $\gamma$ -irradiated) (Triple Pack)

### INTENDED USE

A general purpose medium for cultivation of wide variety of organisms and for inactivation of beta-lactam antibiotics.

### 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 enzymic hydrolysate	15.000
Agar	15.000
Papaic digest of Soybean meal	5.000
Sodium chloride	5.000
Beta-lactamase	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

### 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	: 30 ± 2 ml of medium in 90 mm plates.
pH (at 25°C)	: 7.3± 0.2
Dose of irradiation:	: 10-25 kGy
Sterility Check	: Passes release criteria

### INTERPRETATION

Growth Promotion Test 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
<i>Bacillus subtilis</i>	6633	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
<i>Staphylococcus aureus</i>	25923	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
<i>Escherichia coli</i>	25922	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
<i>Pseudomonas aeruginosa</i>	27853	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
<i>Streptococcus pneumonia</i>	6305	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
<i>Salmonella typhimurium</i>	14028	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
<i>Enterococcus faecalis</i>	29212	50-100	Luxuriant	>=70%	30-35°C	18-24 hours
<i>Candida albicans</i>	10231	50-100	Luxuriant	>=70%	20-25 °C	<=5 days
<i>Aspergillus brasiliensis</i>	16404	50-100	Luxuriant	>=70%	20-25 °C	<=5 days

**Cultural Response**

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	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
<i>Staphylococcus aureus</i>	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:**

Triple layered packing containing 5 No. of plates with one silica gel desiccant bag packed inside it.

**STORAGE**

On receipt, 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.



Quantity



Lot / Batch Number



Temperature Unit



Manufacturer



Best Before



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**  
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