



## Acicase, Certified

CR013

### Principle And Interpretation

Acicase, Certified is acid digest of milk protein, rich source of free amino acids due to its acid hydrolytic nature. It contains high amount of sodium chloride. It is used in culture media where microbial growth is measured optically for example Antibiotic Assay Media. It is equivalent to Casein Acid Hydrolysate, Certified.

### Quality Control

#### Appearance

Off white to light yellow homogenous free flowing powder, having characteristic but not putrescent odour.

#### Solubility

Freely soluble in distilled water, insoluble in alcohol and ether.

#### Clarity

1% w/v aqueous solution is clear without any haziness after autoclaving at 15 lbs pressure (121°C) for 15 minutes.

#### Reaction

Reaction of 2% w/v aqueous solution at 25°C.

#### pH

5.00-7.00

#### Microbial Load:

##### Total aerobic microbial count (cfu/gm)

By plate method when incubated at 30-35°C for not less than 3 days.

Bacterial Count :  $\leq$  2000 CFU/gram

##### Total Yeast and mould count (cfu/gm)

By plate method when incubated at 20-25°C for not less than 5 days.

Yeast & mould Count :  $\leq$  100 CFU/gram

#### Test for Pathogens

1. *Escherichia coli*-Negative in 10 gms of sample 2. *Salmonella* species-Negative in 10 gms of sample 3. *Pseudomonas aeruginosa*- Negative in 10 gms of sample 4. *Staphylococcus aureus*- Negative in 10 gms of sample 5. *Candida albicans*- Negative in 10 gms of sample 6. *Clostridia*- Negative in 10 gms of sample

#### Indole test

Tryptophan content: Absent

#### Thymine / Thymidine content

Following discs were tested for standard ATCC strains and zone of inhibition were measured after an incubation 35-37°C for 18 hours. (As per CLSI Protocol M6-A2 & Standards as per CLSI M100-S19)

#### *Escherichia coli* ATCC 25922

Co-Trimoxazole COT 25mcg (SD010) 23mm- 29mm

#### *Staphylococcus aureus* ATCC 25923

Co-Trimoxazole COT 25mcg (SD010) 24mm- 32mm

#### *Enterococcus faecalis* ATCC 29212

Co-Trimoxazole COT 25mcg (SD010)  $\geq$  20mm

Trimethoprim TR 5mcg (SD039)  $\geq$  20mm

#### *Staphylococcus aureus* ATCC 43300

Oxacillin OX 1mcg (SD088) No zone or very hazy zone.

**Divalent cation content**

Following discs were tested for standard ATCC strains and zone of inhibition were measured after an incubation 35-37°C for 18 hours. (As per CLSI Protocol M6-A2 & Standards as per CLSI M100-S19)

**Staphylococcus aureus ATCC 25923**

Tetracycline TE 30mcg (SD037) 24mm- 30mm

**Escherichia coli ATCC 25922**

Tetracycline TE 30mcg (SD037) 18mm- 25mm

**Pseudomonas aeruginosa ATCC 27853**

Amikacin AK 30mcg (SD035) 18mm- 26mm

Gentamicin GEN 10mcg (SD016) 16mm-21mm

Tobramycin TOB 10mcg (SD044) 19mm-25mm

**Cultural response**

Cultural response observed after an incubation at 35-37°C for 18-48 hours by preparing Mueller Hinton Agar (M173) using Acicase, Certified as an ingredient.

**Cultural Response**

Organism Cultural response	Growth
<i>Escherichia coli</i> ATCC 25922	Luxuriant
<i>Haemophilus influenzae</i> ATCC 49247	Good-luxuriant(on Mueller Hinton Chocolate Agar)
<i>Neisseria gonorrhoeae</i> ATCC 49226	Luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 27853	Luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	Luxuriant
<i>Enterococcus faecalis</i> ATCC 29212	Luxuriant
<i>Streptococcus pneumoniae</i> ATCC 6305	Luxuriant (on Mueller Hinton Blood Agar)

**Chemical Analysis**

Total Nitrogen	$\geq 7.50\%$
Amino Nitrogen	$\geq 5.0\%$
Sodium chloride	$\leq 39\%$
Loss on drying	$\leq 5.0\%$
Residue on ignition	$\leq 39\%$

**Storage and Shelf Life**

Store between 10-30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources. Seal the container tightly after use.

**Disclaimer :**

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