

## Xylose Lysine Desoxycholate (XLD) Agar

**Product No.** CP219B

### Intended Use

Used for selective isolation and culture of *salmonella* in pharmaceuticals. (Pharmacopoeia)

**Specification** 250 g

<b>Ingredients</b>	<b>(g/L)</b>
Yeast Extract	3.0
L-Lysine	5.0
Xylose	3.5
Lactose	7.5
Saccharose	7.5
Sodium Desoxycholate	2.5
Sodium Chloride	5.0
Sodium Thiosulfate	6.8
Ferric Ammonium Citrate	0.8
Phenol Red	0.08
Agar	13.5

(pH 7.0 ± 0.2)

### Additional Reagents

No

### Principle and Interpretation

Xylose is incorporated into the medium because it is fermented by practically all enterics except for the shigellae. This property enables the differentiation of Shigella species. Lysine is included to enable the *Salmonella* group to be differentiated from the nonpathogens. Without lysine, *salmonellae* rapidly would ferment. To add to the differentiating ability of the formulation, an H<sub>2</sub>S indicator system, consisting of sodium thiosulfate and ferric ammonium citrate, is included for the visualization of the hydrogen sulfide produced, resulting in the formation of colonies with black centers. The nonpathogenic H<sub>2</sub>S producers do not decarboxylate lysine; therefore, the acid reaction produced by them prevents the blackening of the colonies. Sodium chloride maintains the osmotic balance. Yeast extract supplies B-complex vitamins which stimulate bacterial growth. Agar is the solidifying

agent. Sodium desoxycholate is inhibitory to gram-positive microorganisms.

### Directions

Suspend 55.2 g of the powder in 1 L of distilled water. Mix thoroughly. Heat with frequent agitation and boil for 1-2 minute to completely dissolve the powder. DO NOT AUTOCLAVE. Cool to approximately 50°C and use immediately.

### Precautions

No

### Quality Control

Microorganisms	Inoculum (CFU)	Reference Medium	Method	Incubation	Growth (recovery)
<i>Salmonella paratyphi B</i> CMCC(B) 50094	≤100	XLD	Growth promoting	30°C-35°C 18h	Good

Microorganisms	Inoculum (CFU)	Reference Medium	Method	Incubation	colony appearance
<i>Salmonella paratyphi B</i> CMCC(B) 50094	≤100	XLD	Indicative	30°C-35°C 18h	Red colony with black centers

### Storage Conditions

Keep container tightly closed and store in a dry place at 2-25°C.

### Shelf Life

3 years.

### Related Products

No

*For laboratory use in industry or R&D purpose. Not for drug, household or other uses.*