



Xylose Lysine Deoxycholate (XLD) Agar

Xylose Lysine Deoxycholate Agar is used for the isolation and differentiation of enteric pathogens. Conforms to Harmonized USP/EP/JP Requirements. XLD Agar is not intended for use in the diagnosis of disease or other conditions in humans.

A medium recommended by the Harmonized Pharmacopeia for isolation and identification of *Salmonella* from non-sterile products. Conforms to USP/EP/JP performance specification. Originally formulated by Taylor to differentiate enteric pathogens, the agar is widely used as the preferred differential medium for *Salmonella* spp. The medium is void of peptones but instead uses yeast extract as a carbon, nitrogen and vitamin source and xylose, lactose and sucrose are fermentable carbohydrates. *Salmonella* are able to ferment xylose to produce acid but not lactose or sucrose. When the xylose is exhausted *Salmonella* will decarboxylate lysine shifting the pH back to neutral. At near neutral pH, *Salmonella* can reduce sodium thiosulfate producing hydrogen sulfide which creates a complex with ferric ammonium citrate to produce black or black centered colonies. Other organisms are able to decarboxylate lysine but acid production from the fermentation of lactose and sucrose keeps the pH too acidic for H₂S production. Selectivity is achieved through the incorporation of sodium deoxycholate and phenol red acts as a pH indicator. According to the Harmonized Pharmacopeia, Rappaport Vassiliadis *Salmonella* Enrichment Broth (NCM0103) is used as a selective enrichment broth, with subculture performed onto Xylose Lysine Deoxycholate (XLD) agar.

Formula	Liter
Xylose	3.5 g/L
L-Lysine	5.0 g/L
Lactose Monohydrate	7.5 g/L
Sucrose	7.5 g/L
Sodium Chloride	5.0 g/L
Yeast Extract	3.0 g/L
Phenol Red	0.08 g/L
Agar	13.5 g/L
Sodium Deoxycholate	2.5 g/L
Sodium Thiosulfate	6.8 g/L
Ferric Ammonium Citrate	0.8 g/L

pH: 7.4 ± 0.2 at 25°C

Formula may be adjusted and/or supplemented as required to meet performance specifications.

Preparation

1. Suspend 55 grams of the medium 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.
4. Cool to 45-50°C.

Product was previously known as Acumedia Product: 7166 XLD Agar; and LabM Product: HP008 Xylose Lysine Deoxycholate Agar (USP/EP/JP)

Order Details

Product #	Product Description
NCM0027A	Xylose Lysine Deoxycholate (XLD) Agar, 500 g
NCM0027B	Xylose Lysine Deoxycholate (XLD) Agar, 5 kg
NCM0027C	Xylose Lysine Deoxycholate (XLD) Agar, 10 kg
NCM0027D	Xylose Lysine Deoxycholate (XLD) Agar, 25 kg (European only size)
NCM0027E	Xylose Lysine Deoxycholate (XLD) Agar, 50 kg (US only size)

Reference Material

7166 - Xylose Lysine Deoxycholate (XLD) Agar, Safety Data Sheet [\[Danish\]](#) [\[Dutch\]](#) [\[English\]](#) [\[EU English\]](#) [\[Finnish\]](#) [\[French\]](#) [\[German\]](#) [\[Italian\]](#) [\[Spanish, Mexico\]](#) [\[Swedish\]](#)

For additional information or questions about product SDS documents, please contact Neogen at SDS@neogen.com.

Please check with your local representative for availability of these products within your region.

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