

PRODUCT INFORMATION

XLT4 Agar Base

Cat. No. X24-103

XLT4 Agar is used for the isolation of non-typhi Salmonella spp.

DESCRIPTION

XLT4 Agar is used for the isolation of non-typhi Salmonella spp. This medium is predominantly effective when used with samples where overgrowth of contaminating flora is anticipated. In order to inhibit the growth of non-Salmonella organisms, the medium is supplemented with Tergitol 4. Meat Peptone and Yeast Extract provide nitrogenous sources for the optimal growth of Salmonella spp. Xylose, Lactose, and Sucrose are the main fermentable carbohydrates. Upon their utilization, the pH indicator Phenol Red shifts from red to yellow. Thiosulfate and Ferric Ammonium Citrate detect hydrogen sulfide production in alkaline conditions by the formation of a black precipitate. Sodium Carbonate stabilizes the pH and Sodium Chloride maintains the osmotic equilibrium.

FORMULA (g/L)

Lactose	8.0 g	Sucrose	8.0 g
Sodium Thiosulfate	6.8 g	Agar	15.0 g
Sodium Chloride	5.0 g	L-Lysine	5.0 g
Yeast	4.5 g	D-Xylose	3.5 g
Ferric Ammonium Citrate	0.8 g	Peptic Digest of Animal Tissue (Bovine)	2.3 g
Phenol red sodium salt	0.1 g		

Final pH: 7.4 ± 0.2 at 25 °C

*Grams per liter may be adjusted or formula supplemented to obtain desired performance.

PREPARATION

Mix 59 grams of the medium in one liter of purified water until evenly dispersed. Heat with repeated stirring and boil for one minute to dissolve completely. **DO NOT AUTOCLAVE.**

QUALITY CONTROL SPECIFICATIONS

1. The powder is homogenous, free flowing with lumps and pale to light pinkish beige.
2. Visually the prepared medium is orange red to reddish orange, with trace to light haze.
3. Expected cultural response after 18-24 hours at 35 ± 2 °C.

ORGANISM	RESULT
<i>Enterococcus faecalis</i> ATCC 29212	Inhibition
<i>Escherichia coli</i> ATCC 25922	Partial to Complete Inhibition
<i>Proteus mirabilis</i> ATCC 12453	Inhibition
<i>Salmonella cholerasuis</i> ATCC 13076	Growth, yellow to red col. w/ black centers
<i>Salmonella typhimurium</i> ATCC 14028	Growth, yellow to red col. w/ black centers
<i>Staphylococcus aureus</i> ATCC 25923	Inhibition

STORAGE

Store the sealed bottle containing the dehydrated medium at 2 to 30°C. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect it from moisture and light. The dehydrated medium should be discarded if it is not free flowing or if the color has changed from the original color.