

# Thioglycollate Agar with Hemin + Vitamin K



Medium used for the cultivation and enumeration of aerobic and anaerobic organisms and for the sterility testing of biologics.

## • CONTENTS (Liter)

Yeast Extract	5.0 g
Casitone	15.0 g
Dextrose	5.0 g
Sodium Chloride	2.5 g
L-Cystine	0.75 g
Thioglycollic Acid	0.5 g
Agar	0.75 g
Resazurin	0.001 g
Hemin	0.005 g
Vitamin K	0.001 g
Final pH = 7.2 ± 0.2 at 25°C	

## • PROCEDURE

Suspend 29.51 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Pour into tubes. If more than 30% of the medium is pink prior to use, reheat once (100°C) to drive off absorbed oxygen.

## • INTERPRETATION

Thioglycollate Agar with Hemin + Vitamin K is a medium used for the cultivation and enumeration of aerobic and anaerobic organisms and for the sterility testing of biologics. Yeast extract and casitone provide carbon, nitrogen, vitamins and minerals. Dextrose is a source of the carbohydrate. Sodium chloride maintains the osmotic balance. L-Cystine and thioglycollic acid are the reducing agents. Resazurin is an oxidation-reduction indicator which becomes pink when oxidized and colorless when reduced. Low concentration of agar interrupts the diffusion of oxygen in the medium. Hemin is the source of the X factor which stimulates the growth of many microorganisms. Vitamin K is the growth factor in the medium.

## • TECHNIC

Inoculate the specimen using a sterile needle to the middle of the medium. Incubate at 36 ± 1°C for 48 ± 3 hours. Slightly loosen the caps. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: free-flowing, homogeneous

Color: beige

### Prepared medium

Appearance : clear to slightly opalescent

Color: light amber with upper medium pink

Incubation conditions: 36 ± 1°C / 48 ± 3 hours / loosen the caps

Microorganism	ATCC	Inoculum CFU	Growth
<i>Clostridium perfringens</i>	13124	50-100	good

**• STORE**

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

**• REFERENCES**

1. Quastel and Stephenson. 1926. J. Biochem. 20:1125.
2. Falk, Bucca and Simmons. 1939. J. Bacteriol. 37:121.
3. Brewer. 1940. JAMA 115:598.
4. Marshall, Ginnish and Luxen. 1940. Proc. Soc. Exp. Biol. Med. 43:672.
5. Nungester, Hood and Warren. 1943. Proc. Soc. Exp. Biol. Med. 52:287.

**• PACKAGE**

Cat. No : MB-T2260 Thioglycollate Agar with Hemin + Vitamin K	500 G
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