

Product Information

S-GALTM/LB AGAR BLEND

Product Code **C 4478**

Storage at Room Temperature

Product Description

S-GalTM/LB Agar Blend is a complete growth medium containing S-GalTM (3,4-cyclohexenoesucletin- β -D-galactopyranoside), our patented, autoclavable chromogenic substrate for β -galactosidase.¹ The blend also contains the inducer, isopropyl β -D-thiogalactoside (IPTG).

S-GalTM/LB Agar Blend eliminates many problems associated with using X-gal. When dry-blended with IPTG in agar medium, it is autoclavable. There's no waiting time for media to cool before adding the substrate. Additionally, since it is already blended in the medium, preparing stock solutions of substrate in dimethylformamide (DMF) or dimethyl sulfoxide (DMSO) is not required.

Functionally, S-GalTM readily substitutes for X-gal for blue-white color selection in most applications. The hydrolyzed aglycone (non-sugar portion) reacts with the Fe³⁺ of added ferric ammonium citrate to produce an intense black stain. Darkly stained colonies or plaques indicate the absence of a cloned DNA fragment, while the unstained colony or plaque denotes the presence of a cloned insert.

The 'negative' colonies are colored a very intense black. Positive colonies are cream colored and stand out well on the background of the agar. Storing the plates at 4 °C can further enhance this color contrast, but this is generally unnecessary.

Note: The background color of S-GalTM/LB Agar Blend plates is typically darker than one normally sees with LB Agar plates. This result is due to the presence of S-GalTM and ferric ammonium citrate in the blend and is normal for this product. This darker background does not hinder (and often enhances) its performance with automated colony pickers.

Components

The following are components of S-GalTM/LB Agar Blend:

Component	g/500 ml
Tryptone	5.0
Yeast extract	2.5
Sodium chloride	5.0
Agar	6.0
S-Gal TM	0.150
Ferric ammonium citrate	0.250
IPTG	0.015

Precautions and Disclaimer

For R&D use only. Not for drug, household or other use.

MSDS is available upon request or at www.sigma-aldrich.com.

Preparation Instructions

Suspend contents of one packet in 500 ml distilled or deionized water. Sterilize by autoclaving for 15 to 20 minutes at 121-124 °C. For microwaving, heat suspended mix until initial boiling. Mix well. Heat for short intervals with mixing until agar component is in solution. Do not allow boiling for extended periods of time. Antibiotics should be added following autoclaving or microwaving, after cooling to 48-52 °C.

Storage/Stability

Prepared S-GalTM/LB Agar can be stored at 4 °C. Autoclaved S-GalTM/LB Agar can be microwaved without impairing performance. Prepared S-GalTM/LB Agar is not light sensitive.

Product Profile

Appearance	Off-white/gray/tan powder
pH	7.0 (20 °C)
Application	β -galactosidase gene detection in <i>E. coli</i>

References

1. U.S. Patent #6,008,008.
2. Heuermann, K. and Cosgrove, J., S-Gal™: A superior dye to X-gal for clonal selection. LifeScience Quarterly, **2(2)**, 2-4 (2001).
[LifeScience Quarterly is a newsletter of Sigma-Aldrich Corporation]
3. Heuermann, K. and Cosgrove, J., S-Gal™: An autoclavable dye for color selection of cloned DNA inserts. BioTechniques, **30**, 1142-1147 (2001).

PAB 10/01

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.