Product Information Sheet

C1970
Cephalexin Monohydrate

Synonyms:	Cefalexin
CAS:	23325-78-2
Formula:	$C_{16}H_{17}N_3O_4S \cdot H_2O$
Mol. Weight:	365.4

Properties

Form:	Powder
Appearance:	White to Off-White
Solubility:	KOH
Application:	Antimicrobial
Storage Temp:	2-6°C
Typical Working Concentration:	Varies with application, should be determined by end user

Application Notes

Cephalexin is a beta-lactam antibiotic with activity against most gram-positive bacteria. Cephalexin acts by binding to specific penicillin-binding proteins (PBPs) inside the bacterial cell wall. It inhibits the last phase of cell wall synthesis, causing the eventual lysis of the bacterial cell.

Cephalexin can be used with PhytoSelect Basal Medium (Prod# P6800) in combination with other antimicrobials (see tabel below) to select for *Xanthomonas campestris*. Also recommended in the International Seed Testing Association's (ISTA) Rules for Seed Testing in method 7-019 to test for *Xanthomonas campestris* pv. *campestris* on *Brassica* spp. (ISTA 2011).

Combine the following products to make 1L of SMART-Xca medium for *Xanthomonas campestris* (Kawanishi et al. 2011):

Prod #	Name of Component: Amount to add to make 1L
P6800	PhytoSelect Basal Medium: 1L (24.927 g)
G503	Glycine: 1.0 g
*C1989 OR *C1796	Cycloheximide: 50 mg OR Cycoheximide Soln (100 mg/mL) – add 0.50 mL
*P777	Penicillin G: 10 mg
*C1970 OR *C2112	Cephalexin: 10 mg OR Cephalexin Soln (100 mg/mL) – add 0.10 mL

*All antibiotic powders or solutions should be aseptically added to the medium after autoclaving and allowing to cool

References

ISTA (2011) Annexe to Chapter 7: Seed Health Methods.

Kawanishi T, T. Shiraishi, Y. Okano, K. Sugawara, M. Hashimoto, K Maejima, K Komatsu, S Kakizawa, Y Yamaji, H Hamamoto, K Oshima, S Namba (2011) New Detection Systems of Bacteria Using Highly Selective Media Designed by SMART: Selective Medium-Design Algorithm Restricted by Two Constraints. PLoS ONE Volume 6, Issue 1.

India Contact