



## Product Information Sheet

### T8020 Tyrothricin Solution, 10 mg/mL

Synonyms: Tyrothricinum  
CAS: 1404-88-2  
Formula:  $C_{65}H_{85}N_{11}O_{13}$   
Mol. Weight: 1228.44

#### Properties

Form: Liquid  
Appearance: Clear, Colorless to light pink/orange tint  
Solubility: Miscible with Ethanol, Water  
Application: Phytopathology, Seed Testing, Microbiology  
Storage Temp: -20 to 0°C  
Typical Working Concentration: Varies with application, should be determined by end user.  
Notes: 10 mg/mL Solution in 95% Ethanol, Sterile Filtered

#### Application Notes

Tyrothricin is a large cyclic polypeptide antibiotic isolated from *Brevibacillus brevis* and is effective against gram-positive bacteria. Tyrothricin is a mixture of two polypeptides; gramicidin and tyrocidin (Neter 1942). Used with PhytoSelect Basal Medium (Prod # P6800) to select for *Pectobacterium carotovorum*. See Table on next page for the complete formulation for the selection media.

#### References

Neter E. (1942) The Effects of Anti-Microbial Substances of Biological Origin upon Bacterial Toxins. *Science* 96(2487), pp. 209-210.

**PhytoTechnology Laboratories®**

P.O. Box 12205; Shawnee Mission, KS 66282-2205

Phone: 1-888-749-8682 or 1-913-341-5343; Fax: 1-888-449-8682 or 1-913-341-5442

Web Site: [www.phytotechlab.com](http://www.phytotechlab.com)

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Composition of the selective media developed by Kawanishi et al (2011). Amounts listed are to make 1L of selection medium.

SMART-Bgl medium			SMART-Aac medium			SMART-Pca medium		
Prod #	For <i>Burkholderia glumae</i>		Prod #	For <i>Acidovorax avenae</i>		Prod #	For <i>Pectobacterium carotovorum</i>	
S744	D-sorbitol	1 g	M539	L-methionine	1 g	T7968	Trehalose	1 g
P6800	PhytoSelect Basal Medium	24.93 g	P6800	PhytoSelect Basal Medium	24.93 g	P6800	PhytoSelect Basal Medium	24.93 g
C1989 C1796	Cycloheximide: Powder <b>or</b> Solution (100 mg/mL)	50 mg 0.5 mL	C1989 C1796	Cycloheximide: Powder <b>or</b> Solution (100 mg/mL)	50 mg 0.5 mL	C1989 C1796	Cycloheximide: Powder <b>or</b> Solution (100 mg/mL)	50 mg 0.5 mL
A116 A1116	Ampicillin: Powder <b>or</b> Solution (100 mg/mL)	10 mg 0.1 mL	A116 A1116	Ampicillin: Powder <b>or</b> Solution (100 mg/mL)	10 mg 0.1 mL	H276 H3818	Cetrimonium (CTAB): Powder <b>or</b> Solution (100 mg/mL)	10 mg 0.10 mL
H276 H3818	Cetrimonium (CTAB): Powder <b>or</b> Solution (100 mg/mL)	10 mg 0.10 mL	H276 H3818	Cetrimonium (CTAB): Powder <b>or</b> Solution (100 mg/mL)	10 mg 0.10 mL	T8110 T8020	Tyrothricin: Powder <b>or</b> Solution (10 mg/mL)	10 mg 1.0 mL
C252 C2010	Chloramphenicol: Powder <b>or</b> Solution (10 mg/mL)	10 mg 1.0 mL	P6809 P6719	Polymixin B: Powder <b>or</b> Solution (10 mg/mL)	10 mg 1.0 mL			

SMART-Rso medium			SMART-Xca medium		
Prod #	For <i>Ralstonia solanacearum</i>		Prod #	For <i>Xanthomonas campestris</i>	
M562	D-Mannitol	1 g	G503	Glycine	1 g
P6800	PhytoSelect Basal Medium	24.93 g	P6800	PhytoSelect Basal Medium	24.93 g
C1989 C1796	Cycloheximide: Powder <b>or</b> Solution (100 mg/mL)	50 mg 0.5 mL	C1989 C1796	Cycloheximide: Powder <b>or</b> Solution (100 mg/mL)	50 mg 0.5 mL
C252 C2010	Chloramphenicol: Powder <b>or</b> Solution (10 mg/mL)	10 mg 1.0 mL	C1970 C2112	Cephalexin: Powder <b>or</b> Solution (100 mg/mL)	10 mg 0.10 mL
P6809 P6719	Polymixin B: Powder <b>or</b> Solution (10 mg/mL)	10 mg 1.0 mL	P777 P6767	Penicillin G: Powder <b>or</b> Solution (10 mg/mL)	10 mg 1.0 mL

### Reference:

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.

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