

**Antibiotics for Mammalian Cell Culture**

Product Name	Product Number	Microbial spectrum				Suggested Working Conc.
		Gram	Gram	Yeasts	Molds	
		(+)bacteria	(-)bacteria			
Amphotericin B	A 2411			•	•	2.5 mg/L
Amphotericin B-Solubilized (Approx. 45%)	A 9528			•	•	5.6 mg/L (of solid)
Amphotericin B- (250 mg/ml solution)	A 2942			•	•	10 ml/L
Ampicillin	A 0166	•	•			100 mg/L
Antibiotic Antimycotic Solution (100x) (10,000 units penicillin, 10 mg streptomycin, and 25 µg amphotericin B per ml)	A 5955	•	•	•	•	10 ml/L
Antibiotic-Antimycotic (100X)	A 7292	•	•	•	•	10 ml/L
Cephalothin	C 3050	•	•			100 mg/L
Dihydrostreptomycin	D 5155	•	•			100 mg/L
Erythromycin	E 5389	•	•			100 mg/L
Gentamicin Sulfate	G 1264	•	•			50 mg/L
Gentamicin Sulfate (10 mg/ml solution)	G 1272	•	•			5 ml/L
Gentamicin Sulfate (50 mg/ml solution)	G 1397 G 1522	•	•			1 ml/L
L-Glutamine-Penicillin-Streptomycin Solution (200 mM L-glutamine, 10,000 units penicillin, and 10 mg streptomycin per ml)	G 1146 G 6784	•	•			10 ml/L
Kanamycin Monosulfate	K 1377	•	•			100 mg/L
Kanamycin Sulfate (10 mg/ml solution)	K 0129	•	•			10 ml/L
Kanamycin Sulfate (50 mg/ml solution)	K 0254 K 0379	•	•			2 ml/L
Lincomycin HCl	L 2774	•				100 mg/L
Neomycin Sulfate	N 6386	•	•			50 mg/L
Neomycin Sulfate (10 mg/ml solution)	N 1142	•	•			5 ml/L
Nystatin (5,000 units nystatin per mg)	N 6261			•	•	2.5 X 10 <sup>5</sup> U/L (50 mg/L)
Nystatin	N 4014			•	•	50 mg/L
Nystatin Suspension (10,000 units nystatin per ml)	N 1638			•	•	24 ml/L
Paromomycin Sulfate	P 5057	•				100 mg/L
Penicillin-G (potassium salt)	P 7794	•				100,000 U/L
Penicillin-G (sodium salt)	P 3032	•				100,000 U/L
Penicillin-G (sodium salt)	P 3414	•				100,000 U/L
Penicillin-Streptomycin Solution (5,000 units penicillin-G and 5 mg streptomycin per ml)	P 0906 P 4458	•	•			20 ml/L
Penicillin-Streptomycin Solution (10,000 units penicillin-G and 10 mg streptomycin per ml)	P 0781 P 7539 P 4333	•	•			10 ml/L
Penicillin G-Streptomycin	P 3539	•	•			10 ml/L
Penicillin-Streptomycin-Neomycin solution (5,000 units penicillin-G, 5 mg streptomycin and 10 mg neomycin per ml)	P 9032  P 4083	•	•			10 ml/L
Penicillin-G Streptomycin-Neomycin	P 3664	•	•			10 ml/L
Phenoxyethylpenicillinic Acid (potassium salt) [Penicillin V]	P 4807	•				100,000 U/L
Polymyxin B Sulfate	P 4932		•			50 mg/L
Spectinomycin Dihydrochloride	S 4014	•	•			7.5-20 mg/L
Spectromycin Sulfate	S 9137	•	•			100 mg/L
Spectromycin Sulfate	S 0890	•	•			10 mg/L
Tetracycline Hydrochloride	T 7660	•	•			10 mg/L
Tylosin Tartrate (8 mg/ml soln.)	T 3397	•				1 ml/L

**Antibiotics for Plant Cell Culture**

<b>Product</b>	<b>Product Number</b>	<b>Gram (+) Bacteria</b>	<b>Gram (-) Bacteria</b>	<b>Myco-bacteria</b>	<b>Yeasts</b>	<b>Molds</b>	<b>Myco-plasma</b>	<b>Working Concentration (µg/ml) and applications<sup>1</sup></b>
<b>ANTIBIOTICS</b>								
Carbenicillin	<b>C 3416</b>	*	•					up to 500 (CC, PR, EC)
Cefotaxime	<b>C 7039</b>	*	•					up to 500 (CC, PR, EC)
Chloramphenicol	<b>C 1919</b>	•	•	*			*	10-35 (TS)
Erythromycin	<b>E 4514</b>	•	•	*			*	32
G 418	<b>G 1279</b>							10-500
Gentamicin Sulfate	<b>G 6896</b>	*	•				•	up to 250 (CC)
Hygromycin B	<b>H 9773</b>							100-200
Kanamycin	<b>K 4378</b>	•	•				•	16 (SSC); up to 40 (CC, PR, EC)
Neomycin	<b>N 3144</b>	•	*					up to 1,000
Paromycin	<b>P 8692</b>	•	*					
Penicillin G, Potassium	<b>P 8306</b>	•	*					up to 100
Penicillin G, Sodium	<b>P 8431</b>	•	*					up to 100
Rifampicin	<b>R 7382</b>	•	•	•				50 (TS); up to 25 (PC, TEC)
Streptomycin sulfate	<b>S 0774</b>	*	•	*				< 16
Vancomycin	<b>V 1130</b>	•						up to 10 (PC); up to 40 (CC, EC, STM)
<b>ANTIMYCOTICS</b>								
Amphotericin B	<b>A 6804</b>				•	•		up to 5 (CC, EC, STM)
Nystatin	<b>N 9767</b>				•	•		16 (SSC); up to 40 (CC, EC, STM)
Pentachloronitrobenzene	<b>P 8556</b>						•	
Thiabendazole	<b>T 5535</b>						•	

• -Effective against most species

\* -Effective against certain species

<sup>1</sup>Application Key: CC = callus culture; PR = plant regeneration; EC = cotyledon, hypocotyl, or leaf disc culture; TS = transformant selection; SE = somatic embryogenesis; SSC = stem selection culture; PC = protoplast culture; TEC = tuber explant culture; CC = cell culture; STM = shoot tip micropropagation

**Antibiotic Selection Agents for Cell Culture**

<b>Product Name</b>	<b>Product Number</b>	<b>Mode of Action</b>	<b>Suggested Working Conc.</b>
Actinomycin D	<b>A 9415</b>	Complexes with DNA and interferes with RNA synthesis	1 µg/ml
Bleomycin Sulfate	<b>B 8416</b>	Complexes with DNA, causing strand scissions	10-100 µg/ml
Chloramphenicol	<b>C 3175</b>	Inhibits elongation at peptidyl transferase	5 µg/ml
G 418	<b>A 1720</b>	Blocks polypeptide synthesis and inhibits chain elongation	100-800 µg/ml
G 418 (50 mg/ml solution)	<b>G 8168</b>	Blocks polypeptide synthesis and inhibits chain elongation	100-800 µg/ml
Hygromycin B	<b>H 3274</b>	Blocks polypeptide synthesis and inhibits chain elongation	
Mitomycin C	<b>M 4287</b>	Inhibits nucleic acid synthesis	10-50 µg/ml
Mycophenolic Acid	<b>M 3536</b>	Blocks inosine monophosphate dehydrogenase in guanosine monophosphate pathway	25 µg/ml
Puromycin•HCl	<b>P 8833</b>	Inhibits protein synthesis	10-100 µg/ml