

Doc. No.	Rev	Effective Date
PI1	2	08JUL2024

Antibiotic and Antimycotic Products

Product Description

The LSP cell culture portfolio includes antibiotics and antimycotic products that support contamination-free cultures. With applications ranging from bacteriocidal to bacteriostatic, these products fill many needs, including controlling contamination from bacteria, fungi, mycoplasma, or yeast. Some of these antibiotics modify enzyme activity and some work to change cell permeability.

Amphotericin B

Amphotericin B is an anti-fungal agent. It shows a high order of *in vitro* activity against many species of fungi and is intended for the control of yeasts and fungi in tissue culture.

Ampicillin

Ampicillin is a broad-spectrum antibiotic used to prevent and treat a number of bacterial infections and is useful in preventing potential bacterial contamination in cell culture.

Blasticidin S HCl

Blasticidin, also known as *Streptomyces griseochromogenes*, is a common selection agent effective against both eukaryotic and prokaryotic cells being used in genetic engineering applications.

As an antibiotic, it inhibits cell propagation at the gene translation level. When a gene being studied is linked to a gene coding for resistance to Blasticidin, only cells engineered to carry the gene of interest will survive upon exposure to the selection agent.

Carbenicillin Disodium Salt

This product is recommended as a substitute for ampicillin at the same concentration in molecular biology applications, carbenicillin demonstrates improved heat stability over ampicillin when used in growth media and reduces the presence of satellite colonies commonly seen with ampicillin.

Chloramphenicol (Chlornitromycin)

Chlornitromycin is a synthetic broad spectrum, bacteriostatic antibiotic, isolated from strains of *Streptomyces venezuelae*. It also inhibits mammalian mitochondrial protein synthesis and is useful for preventing contamination in cell culture.

Ciprofloxacin (Cyrofloxacin)

Ciprofloxacin is a DNA gyrase/topoisomerase-targeting antibiotic. It offers a safe and efficient method for the control of mycoplasmas in cell culture.

QUALITY - TRACEABILITY - INTEGRITY

Life Science Production

The Science Centre, 1 Blaydon Road, Sandy, Bedfordshire, SG19 1RZ

Tel: +44 (0) 1234 889180 Email: sales@lifesciencegroup.co.uk Web: www.lifesciencegroup.co.uk

Life Science Production, Antibody Production Services and Diagnostic Kit Services are divisions of Life Science Group Ltd

Registered in England and Wales Company Number: 06606016



Doc. No.	Rev	Effective Date
PI1	2	08JUL2024

G418 Sulfate

This is a selection agent for cells transformed with the aminoglycoside modifying enzyme aminoglycoside phosphotransferase (APH). This enzyme covalently modifies the antibiotic's amino or hydroxyl functions to weaken the drug-ribosome interaction.

Gentamicin Sulfate

This is a broad spectrum antibiotic which is an aminoglycoside antibiotic complex active against gram negative and gram positive organisms. It is also effective against many strains of mycoplasma rendering it suitable for many cell culture applications.

Hygromycin B

Produced by *Streptomyces hygroscopicus*, it is used as a selection agent and inhibits protein synthesis in cells not carrying hygromycin phosphotransferase (hph). The gene encoding hph inactivates hygromycin B and restores protein synthesis.

Kanamycin Sulfate

This is a water soluble, broad spectrum aminoglycoside antibiotic which inhibits the protein synthesis in susceptible bacteria and is effective against gram-positive and gram-negative organisms and some mycoplasma.

Neomycin Sulfate

This is a water soluble, broad spectrum aminoglycoside antibiotic which is highly active against gram-negative organisms.

Penicillin-Streptomycin

The antibiotics penicillin and streptomycin are typically used together and offer a combined action against gram-positive and gram-negative bacterial.

Puromycin dihydrochloride

Produced by *Streptomyces alboniger*, puromycin dihydrochloride is a selection agent for cells transformed with the puromycin N acetyltransferase (PAC) gene encoding resistance.

Streptomycin Sulfate

This is a water soluble antibiotic which is highly active against gram-positive bacteria by inhibiting initiation and causing misreading of rRNA in protein synthesis.

Tetracycline Hydrochloride

Members of this class of antibiotic inhibit protein synthesis by binding to the 30S ribosomal subunit, thereby blocking the incoming aminoacyl- tRNA from attaching to the acceptor site on the mRNA-ribosome complex. The tetracyclines consist of a polycyclic ring with differing side chains and are a broad-

QUALITY - TRACEABILITY - INTEGRITY

Life Science Production

The Science Centre, 1 Blaydon Road, Sandy, Bedfordshire, SG19 1RZ

Tel: +44 (0) 1234 889180 Email: sales@lifesciencegroup.co.uk Web: www.lifesciencegroup.co.uk

Life Science Production, Antibody Production Services and Diagnostic Kit Services are divisions of Life Science Group Ltd

Registered in England and Wales Company Number: 06606016



Doc. No.	Rev	Effective Date
PI1	2	08JUL2024

spectrum class of antibiotics against aerobes and anaerobes. The effect of this bacteriostatic compound is reduced by dilution, and its activity can be reduced by chelation with divalent cations.

Ordering information

Product Code	Product Description	Size
30-003-CF	Corning [®] Amphotericin B, Liquid 250 µg/mL solubilized	6 x 50 mL
61-238-RH	Corning [®] Ampicillin, Sodium Salt, Powder	10 g
61-238-RM	Corning [®] Ampicillin, Sodium Salt, Powder	100 g
30-004-CI	Corning [®] Antibiotic-Antimycotic Solution, 10,000 I.U.	6 x 100 mL
30-100-RB	Corning [®] Blastidicin S HCl	50 mg
46-100-RG	Corning [®] Carbenicillin Disodium Salt, Powder	5 g
61-239-RI	Corning [®] Chloramphenicol, Powder	25 g
61-277-RF	Corning [®] Ciprofloxacin Hydrochloride, Powder	1 g
61-277-RG	Corning [®] Ciprofloxacin Hydrochloride, Powder	5 g
61-234-RF	Corning [®] G418 Sulfate, Powder	1 g
61-234-RK	Corning [®] G418 Sulfate, Powder	50 g
30-234-CI	Corning [®] G418 Sulphate (liquid, 50 mg/ml)	100 mL
30-234-CR	Corning [®] G418 Sulphate (liquid, 50 mg/ml)	20 mL
61-234-RG	Corning [®] G418 Sulphate (powder)	5 g
30-005-CR	Corning [®] Gentamicin Sulfate, Liquid 50 mg/mL Solution	10 x 10 mL
61-098-RA	Corning [®] Gentamicin Sulfate, Powder	0,1 g
61-098-RF	Corning [®] Gentamicin Sulfate, Powder	1 g
30-240-CR	Corning [®] Hygromycin B solution	20 mL
30-006-CF	Corning [®] Kanamycin Sulfate, Liquid, 5,000 µg/mL Solution	6 x 50 mL
61-176-RG	Corning [®] Kanamycin Sulfate, Powder	5 g
61-241-RG	Corning [®] Neomycin Sulfate, Powder	5 g
30-002-CI	Corning [®] Penicillin/Streptomycin solution 100X	6 x 100 mL
30-001-CI	Corning [®] Penicillin-Streptomycin Solution, 50x,	6 x 100 mL
30-009-CI	Corning [®] Penicillin-Streptomycin-L-Glutamine, 100x,	6 x 100 mL
61-088-RM	Corning [®] Streptomycin Sulfate, Powder	100 g
61-242-RG	Corning [®] Tetracycline Hydrochloride, Powder	5 g

For Research use only. Not approved for human or veterinary use, for application to humans or animals, or for use in clinical or *in vitro* procedures.

QUALITY - TRACEABILITY - INTEGRITY

Life Science Production

The Science Centre, 1 Blaydon Road, Sandy, Bedfordshire, SG19 1RZ

Tel: +44 (0) 1234 889180 Email: sales@lifesciencegroup.co.uk Web: www.lifesciencegroup.co.uk

Life Science Production, Antibody Production Services and Diagnostic Kit Services are divisions of Life Science Group Ltd

Registered in England and Wales Company Number: 06606016



Doc. No.	Rev	Effective Date
PI1	2	08JUL2024

Support

To learn more, contact us by phone at +44 1234 889180 or email sales@lifesciencegroup.co.uk

QUALITY - TRACEABILITY - INTEGRITY

Life Science Production

The Science Centre, 1 Blaydon Road, Sandy, Bedfordshire, SG19 1RZ

Tel: +44 (0) 1234 889180 Email: sales@lifesciencegroup.co.uk Web: www.lifesciencegroup.co.uk

Life Science Production, Antibody Production Services and Diagnostic Kit Services are divisions of Life Science Group Ltd

Registered in England and Wales Company Number: 06606016

