

# Reagents for cell culture

## Prevention and elimination of Mycoplasma contamination

### Incubator-Clean™ A5230

Contamination of incubators and sterile workbenches is a serious problem that can result in costly damage. The Incubator-Clean™ solution prevents contamination and growth of fungi (and spores), bacteria (including tuberculosis bacteria), viruses (including HIV and hepatitis B) and mycoplasma. The active components are quaternary benzylammonium compounds. The solution does not contain mercury, formaldehyde, phenol or alcohol. It is non-corrosive to aluminum, tin-coated iron, chromium, nickel, steel, stainless steel and copper. In addition, Incubator-Clean™ is biodegradable and non-toxic.



### Incuwater-Clean™ A5219

Disinfectant solution for CO<sub>2</sub> incubator water. To prevent microbial growth in incubator water baths. 100X concentrated solution. Use 50 ml per 5 liters of incubator water bath. It does not attack stainless steel and is non-toxic and non-volatile.



### Aquabator-Clean™ (100X) A9390

Disinfectant solution for ordinary water baths (not for CO<sub>2</sub> incubators). To prevent microbial growth in water baths. 100X concentrated solution. It is recommended to use 10 ml per liter of water.



### PCR Mycoplasma Test Kit A3744

The PCR Mycoplasma Test Kit is designed to detect the presence of mycoplasma contaminating biological materials, such as cultured cells. Ready-to-use PCR Mix for the detection of mycoplasma in cell culture. Detects all mycoplasma species found in cell cultures. Sufficient for 20 tests.

Components of the kit:

- Reaction mix
- Buffer solution
- Positive template control
- Internal control DNA template
- Internal control primers mix



### PCR Mycoplasma Test Kit II A8994

This PCR Mycoplasma Test Kit is supplied without Taq-DNA-Polymerase. This enables to lyophilize the temperature-sensitive components and to increase the stability especially during the transport at ambient temperature.

Lyophilized PCR Mix for the detection of mycoplasma in cell culture by conventional PCR. Detects all mycoplasma species found in cell cultures. This kit meets criteria of section 2.6.7 of Ph. Eur.

Components of the kit:

- PCR Primer Nucleotide Mix
- Positive template control
- Reaction Buffer Solution
- Water PCR grade
- Internal control DNA



Product Name	Code	Package
Aquabator-Clean™ (100X)	A9390,0250	250 ml
Incubator-Clean™	A5230,0500	500 ml
	A5230,5000RF	5 L
Incuwater-Clean™	A5219,0100	100 ml
PCR Mycoplasma Test Kit	A3744,0020	20 tests
PCR Mycoplasma Test Kit II	A8994,0025	25 tests
	A8994,0050	50 tests
	A8994,0100	100 tests

## Antibiotics and Antimycotics

If you are working with microorganisms or cells as a model, it is almost always crucial to exclude other organisms from your culture. To do this, PanReac AppliChem offers a broad spectrum of antibiotics and antimycotics for use in cell culture. This here is only a selection of the most used antibiotics and antimycotics. You can find more visiting our website.

Code	Product Name	Target organism	Mode of action	Recommended working concentration	Stock solution
A1907	Amphotericin B	Fungi, yeast	Binds to sterols with planar structure and disturbs the membrane permeability	0.25 µg/ml >3 µg/ml fungicidal	30-40 mg/ml in DMSO
A0839	Ampicillin Sodium Salt	Gram positive/negative bacteria and cocci	Inhibits cell wall synthesis (transpeptidase) in growing bacteria	20 - 60 µg/ml	50 mg/ml in water Store at -20 °C
A3784	Blasticidin S Hydrochloride	Prokaryotes, eukaryotes	Inhibits protein biosynthesis by preventing the formation of the peptide bond	3 - 100 µg/ml	50 mg/ml in water or buffer. Store at -20 °C
A1491	Carbenicillin Disodium Salt	Gram negative germs, enterococci	Inhibits cell wall synthesis (transpeptidase) in growing bacteria	20 - 60 µg/ml	50 mg/ml in water Store at -20 °C
A0879	Cycloheximide	Fungi, eukaryotes	Binds to 80 S ribosome in eukaryotic cells; inhibits formation of peptide bond	10 µg/ml	10 mg/ml Store at -20 °C
A6798	G418 Disulfate solution, sterile	Toxic to bacteria, yeast, higher plants, protozoa, mammalian cells	Aminoglycoside antibiotic	50 - 1000 µg/ml (frequently 0.4 - 1 mg/ml)	2 mg/ml in water or medium, adjust pH to 7.4. Store at +4 °C
A1492	Gentamycin Sulfate	Gram positive/negative germs	Inhibits protein synthesis by binding to the L6 protein of the 50 S ribosomal subunit	15 - 50 µg/ml	10 - 20 mg/ml in water, formamide
A2175	Hygromycin B solution	Mycoplasma, eukaryotic and prokaryotic cells	Inhibits the protein synthesis by termination of the translocation and causes mistakes in transcription	10 - 400 µg/ml	ca. 41 mg/ml in water Store at -20 °C
A4789	Kanamycin Sulfate	Gram positive/negative bacteria and cocci	Inhibits protein synthesis (translocation)	10 - 100 µg/ml	10 mg/ml in water Store at -20 °C
A0890	Polymyxin B Sulfate	Gram negative, non-proliferating bacteria	Interaction with phospholipid components of the bacterial cell membrane; changes permeability of the membrane and causes efflux of essential plasma compounds	50 µg/ml	25 mg/ml water, methanol
A1839	Vancomycin Hydrochloride	Bacteriostatic and bactericidal against gram positive cocci and bacteria	Amphoteric glycopeptide antibiotic; binds to bacterial cell wall precursors (peptidoglycans)	1 - 25 µg/ml	soluble in water >100 mg/ml

## Cell Proliferation Kit XTT

Kit for the quantification of cell proliferation and viability without using radioactive isotopes; 1000 assays.

Only in living cells mitochondria are capable to reduce XTT to form an orange colored water soluble dye. Therefore, the concentration of the dye is proportional to the number of metabolically active cells.

### Main advantages

- Easy to use: There is no requirement for additional reagents and/or cell washing procedures.
- Speed: One step process with results within 2 – 5 hours.
- Sensitivity: Can be assayed even in low cell concentrations.
- Accuracy: Dye absorbance is proportional to the number of live cells in each well.
- Safety: There is no need for radioactive isotopes.
- Convenience: No instrumentation required except for a spectrophotometer (ELISA reader).  
The entire assay can be performed directly in a microtiter plate.

Product Name	Code	Package
Cell Proliferation Kit XTT	A8088,1000	1000 tests



## Simple Media and Supplements

The cultivation of cells requires the use of a medium that provides all the nutrients and growth factors needed for the proper proliferation and growth of a cell culture.

The preparation of media in the laboratory allows to define the exact conditions that a certain culture requires for each specific experiment. Here you will find a selection of media components, supplements and auxiliary products for cell culture.

Product Name	Usage	Code	Package
Agar powdered pure, food grade	For plates or special solid medium	A0917,0500	500 g
		A0917,1000	1 kg
		A0917,5000	5 kg
Agar Bacteriology grade	For plates or special solid medium	A0949,0500	500 g
		A0949,1000	1 kg
		A0949,5000	5 kg
Dimethyl Sulfoxide for cell culture	For freezing cells / Antibiotic solutions	A3672,0050	50 ml
		A3672,0100	100 ml
		A3672,0250	250 ml
PBS buffer (10X Dulbecco's) - Powder	Used as buffer system and later for analytical purposes	A0965,9010	10 L
		A0965,9050	50 L
		A0965,9100	100 L
Peptone from Soybean (enzymatic digest) BioChemica	Component of bacterial media	A2206,1000	1 kg
Sodium Chloride solution (0.9 %), sterile	Suitable for cell culture	A1671,0100	100 ml
		A1671,0250	250 ml
		A1671,0500	500 ml
		A1671,1000	1 L
Sodium Pyruvate for cell culture	Often used as a carbon source	A4859,0100	100 g
		A4859,1000	1 kg
Tryptone BioChemica	Component of bacterial media	A1553,0500	500 g
		A1553,1000	1 kg
Yeast extract BioChemica	Component of bacterial media	A1552,0500	500 g
		A1552,1000	1 kg





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## Amino Acids

Amino acids are one of the most important components for the existence of life. In science they play a role as buffers but also as a part of media for a proper and desired growth of cell culture. Sometimes even for special methods.

On our website you can find a great overview of all our amino acids. In the table below you will find a selection of the ones most frequently used by our customers.



Product Name	Code	Package
L-Arginine base (Ph. Eur., USP) pure, pharma grade	A1345,0500	500 g
	A1345,1000	1 kg
	A1345,9010	10 kg
L-Arginine Hydrochloride (Ph. Eur., USP) pure, pharma grade	A1700,1000	1 kg
L-Asparagine 1-hydrate (Ph. Eur.) pure, pharma grade	A1668,0100	100 g
	A1668,1000	1 kg
L-Cysteine Hydrochloride 1-hydrate (Ph. Eur., USP) pure, pharma grade	A1702,1000	1 kg
L-Cystine (Ph. Eur.) pure, pharma grade	A1703,0100	100 g
	A1703,0500	500 g
	A1703,1000	1 kg
L-Glutamic Acid (Ph. Eur., USP) pure, pharma grade	A1704,0250	250 g
	A1704,0500	500 g
	A1704,1000	1 kg
L-Glutamine (DAB, USP) pure, pharma grade	A1420,0250	250 g
	A1420,1000	1 kg
L-Glutamine for cell culture	A3704,1000	1 kg
L-Histidine (Ph. Eur., USP) pure, pharma grade	A1341,0100	100 g
	A1341,1000	1 kg
	A1341,5000	5 kg
L-Isoleucine (Ph. Eur., USP) pure, pharma grade	A1440,1000	1 kg
L-Leucine (Ph. Eur., USP) pure, pharma grade	A1426,1000	1 kg
L-Proline (Ph. Eur., USP) pure, pharma grade	A1707,0100	100 g
	A1707,1000	1 kg
	A1707,9020	20 kg
L-Serine (Ph. Eur., USP) pure, pharma grade	A1708,0100	100 g
	A1708,1000	1 kg
L-Threonine (Ph. Eur., USP) pure, pharma grade	A1419,1000	1 kg

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