ITW PanReac AppliChem ITW Reagents

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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_2 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_2 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 II A8994

Lyophilized PCR Mix for the detection of mycoplasma in cell culture by conventional PCR. 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.
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 number	Product name	Pack sizes
A9390	Aquabator-Clean™ (100X)	250 mL
A5230	Incubator-Clean™	500 mL, 5 L
A5219	Incuwater-Clean™	100 mL
A8994	PCR Mycoplasma Test Kit II	25 Tests 2 x 25 Tests 4 x 25 Tests

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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.

Product number	Product name	CAS number	Pack sizes	Target organism	Mode of action	Recommended working concentration	Stock solution
A1907	Amphotericin B BioChemica	1397-89-3	50 mg, 1 g, 60 g	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 BioChemica	69-52-3	10 g, 25 g, 100 g	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 BioChemica	3513-03-9	25 mg	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 BioChemica	4800-94-6	5 g, 10 g	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 BioChemica	66-81-9	1 g, 5 g, 25 g, 100 g, 600 g	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	108321-42-2	20 mL, 50 mL	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 BioChemica	1405-41-0	5 g, 25 g, 1 kg	Gram negative/ Staphylococcus	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	31282-04-9	5 mL, 25 mL	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 (Ph. Eur., BP) pure, pharma grade	5965-95-7	10 g, 25 g, 100 g	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 BioChemica	1405-20-5	1 g, 10 g	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 BioChemica	1404-93-9	1 g, 5 g	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

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 number	Product name	CAS number	Pack sizes	Usage
A0917	Agar powdered pure, food grade	9002-18-0	1 kg, 5 kg	For plates or special solid medium
A0949	Agar, European Type, (Ingredient) for microbiology, plant tissue culture, bacteriology grade	9002-18-0	500 g, 1 kg, 5 kg	For plates or special solid medium
A3672	Dimethyl sulfoxide (DMSO) Cell culture grade	67-68-5	50 mL, 100 mL, 250 mL	For freezing cells / Antibiotic solutions
A0965	PBS buffer (10X Dulbecco's) - Powder	–	10 L, 50 L	Used as buffer system and later for analytical purposes
A2206	Peptone from soybean (enzymatic digest) BioChemica	100209-45-8	1 kg	Component of bacterial media
A1671	Sodium Chloride solution 0.9 %, sterile	–	100 mL, 250 mL, 500 mL, 1 L	Suitable for cell culture
A4859	Sodium Pyruvate for cell culture	113-24-6	100 g, 1 kg	Often used as a carbon source
A1553	Tryptone BioChemica	91079-40-2	500 g, 1 kg	Component of bacterial media
A1552	Yeast extract BioChemica	–	500 g, 1 kg,	Component of bacterial media

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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 webside 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 number	Product name	CAS number	Pack sizes
A1345	L-Arginine base (Ph. Eur., USP) pure, pharma grade	74-79-3	500 g, 1 kg
A1700	L-Arginine Hydrochloride (Ph. Eur., USP) pure, pharma grade	1119-34-2	1 kg
A1668	L-Asparagine 1-hydrate (Ph. Eur.) pure, pharma grade	5794-13-8	1 kg
A1702	L-Cysteine Hydrochloride 1-hydrate (Ph. Eur., USP) pure, pharma grade	7048-04-6	1 kg
A1703	L-Cystine (Ph. Eur.) pure, pharma grade	56-89-3	100 g, 1 kg
A1704	L-Glutamic Acid (Ph. Eur., USP) pure, pharma grade	56-86-0	1 kg
A1420	L-Glutamine (DAB, USP) pure, pharma grade	56-85-9	250 g, 1 kg
A3704	L-Glutamine for cell culture	56-85-9	1 kg
A1341	L-Histidine base (Ph. Eur., USP) pure, pharma grade	71-00-1	1 kg, 5 kg
A1440	L-Isoleucine (Ph. Eur., USP) pure, pharma grade	73-32-5	1 kg
A1426	L-Leucine (Ph. Eur., USP) pure, pharma grade	61-90-5	1 kg
A1707	L-Proline (Ph. Eur., USP) pure, pharma grade	147-85-3	100 g, 1 kg, 20 kg
A1708	L-Serine (Ph. Eur., USP) pure, pharma grade	56-45-1	100 g, 1 kg
A1419	L-Threonine (Ph. Eur., USP) pure, pharma grade	72-19-5	1 kg

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