

Featured 2014-15 Catalog Products

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Peel-A-Way® Molds

Peel-A-Way® molds are versatile and disposable embedding molds that are easy to use and save time. After the tissue is embedded, the molds can easily Peel-A-Way®, leaving a block with a flat surface that is ready to section. No trimming is necessary and no release agent is required, allowing the completed block to easily attach to a chuck for sectioning. Peel-A-Way® molds can be covered and made airtight, making them compatible with a wide variety of embedding media including paraffin, plastic, epoxy resins and acrylic resins. They can be used with Tissue Freezing Medium and can be frozen in liquid nitrogen (with or without isopentane), dry ice or on a freezing stage. They are especially useful for frozen sections where orientation is critical and where defrosting during transfer to the cryostat chuck is an issue. The mold creates a buffer that allows the specimen to freeze to the chuck without defrosting the base.

Peel-A-Way® molds are composed of polyethylene, and are commonly used with Gold Standard Peel-A-Way® Micro-Cut paraffins, PolyFin® Paraffin, GemCut® Paraffins, JB-4, GMA, Osteo-Bed, Osteo-Bed Plus and MMA embedding resins, which are available from the Polysciences catalog. Molds are available in rectangular, square and truncated geometries.

Call TODAY for a free sample!



Cat. #	Description
18646A	Peel-A-Way® Square - S22
18646B	Peel-A-Way® Rectangular - R30
18646C	Peel-A-Way® Rectangular - R40
18646D	Peel-A-Way® Disposable Sampler Pack
18985	Peel-A-Way® Truncated - T8
18986	Peel-A-Way® Truncated - T12

2014-2015

PRODUCT CATALOG



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Monomers & Polymers
Microspheres & Particles
High Performance Adhesives,
Coatings & Encapsulants

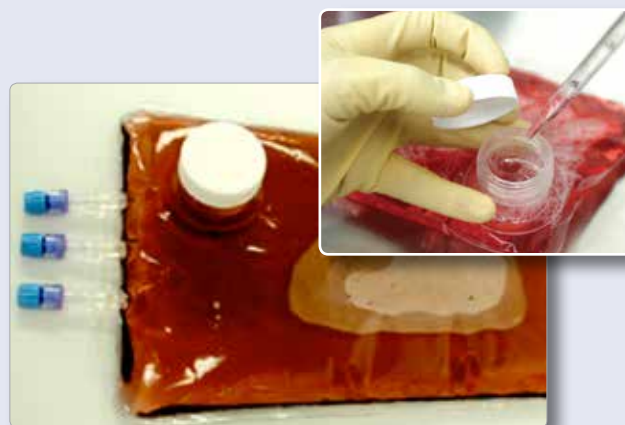
New! Cell Culture Bags

Polysciences' cell culture bags are simple-to-use, disposable devices for the culture, harvest and storage of cells. The bags are composed of a USP class VI medical grade material, providing superior gas permeability that is needed for the promotion of rapid cell growth, and the robustness necessary for centrifugation. Bags are available in several sizes (50 mL to 2 L), most of which fit into standard centrifuge adaptors and rotors. In addition to the screw cap fitment that facilitates cell harvesting, Polysciences' cell culture bags are available with Luer-lock ports for aseptic inoculation and sampling. These ports can also be used to connect several bags in series for easy production scale-up. No extraneous shaker or stirring devices are required with Polysciences' cell culture bags, and only a simple CO₂ incubator is needed due to the high gas

permeability of the bags. Incubators with highly compact wire shelving, such as the Caron Products 6024 Reach-In CO₂ Incubator, provide the space and capacity for up to 96 one liter cell culture bags, converting your incubator into a bioreactor-scale system. The bags are fully stable under conditions of cryo-storage, and display chemical resistance to DMSO and DMD while maintaining strength and flexibility at long-term cell storage temperatures.

Example cell types that have been cultured using Polysciences' cell culture bags include Hybridomas, CHO K-1, HEK293, Jurkats, Stem Cells (embryonic and adipose-derived), sf-9 insect, CHO-S and plant cells. *Bags are available in 50 mL, 250 mL, 1 L, and 2 L sizes, and with 0, 2 or 3 ports.*

Cat. #	Description
25626	50mL Fill Volume with Fitment
25627	50mL Fill Volume with 2 Ports
25628	250mL Fill Volume with Fitment
25629	250 mL Fill Volume with Fitment & 2 Ports
25630	250mL Fill Volume with 2 Ports
25631	1 Liter Fill Volume with Fitment
25632	1 Liter Fill Volume with Fitment & 3 Ports
25633	1 Liter Fill Volume with 3 Ports
25634	2 Liter Fill Volume with Fitment
25635	2 Liter Fill Volume with Fitment & 3 Ports
25636	2 Liter Fill Volume with 3 Ports



New! Bovine Serum Albumin (BSA)

Polysciences' low-cost, high quality Bovine Serum Albumin (BSA) is useful for a wide range of applications, including protease-sensitive immunoassays, protein standardization, hybridization, cell cultures, protein conjugation, and enzyme stabilization. Polysciences'



BSA is a high purity "fraction V" powder derived from the plasma of USDA-inspected healthy animals from abattoirs located in the United States. The albumin is isolated from other plasma proteins and lipids using a unique non-solvent, "closed-loop procedure," that is designed to inactivate proteases and other enzymes. Additional membrane dialysis and filtration minimizes analytes that can cause background interference in sensitive in vitro diagnostic assays and inhibition in sensitive cell and microbial culture systems. Polysciences' BSA features high purity (≥98% in lyophilized powder), virtually no detectable IgG, endotoxin, enzyme or protease activity, superior solubility and excellent reproducibility. The albumin is also validated for clearance of TSE agents, and is traceable to source animals, which eases regulatory approval. Polysciences' Bovine Serum Albumin is available as a lyophilized powder or aqueous solution.

Cat. #	Description
25637	Standard Grade, pH 7.0, >96% Purity, Lyophilized
25638	Standard Grade, pH 5.2, >96% Purity, Lyophilized
25639	Reagent Grade, pH 7.0, >98% Purity, Lyophilized
25640	Cohn Analog (Microbiological), Lyophilized
25641	Ultratech (Biotechnological), Lyophilized
25642	New Zealand Sourced Standard Grade, Lyophilized
25643	Standard Grade, 30% Solution (aq) w/ Azide
25644	Standard Grade, 30% Solution (aq), No Preservative
25645	Reagent Grade, 30% Solution (aq) w/ Azide
25646	Reagent Grade, 35% Solution (aq), No Preservative
25647	Cell Culture Grade, 35% Solution (aq) w/ Azide
25648	Cell Culture Grade, 35% Solution (aq), No Preservative



New! Chemzymes Ultra Pure® Enzymes

Polysciences' Chemzymes Ultra Pure® Enzymes include Animal Origin-Free Collagenases for applications that are sensitive to animal pathogens, protein sequencing enzymes and proteases for tissue dissociation and protein digestion. Enzymes are available with different levels of activity, purification and modification.

Enzymes for Sequencing Proteins

Chemzymes Ultra Pure® Enzymes for Sequencing Proteins include lyophilized trypsin, proteases, clostripains, and chymotrypsins. Sequencing grade enzymes are available chemically modified, TPCK treated, chromatographically purified or dialyzed.

Cat. #	Description
25614	Chemzymes Ultra Pure® Modified Trypsin for Sequencing
25615	Chemzymes Ultra Pure® Purified Trypsin for Sequencing
25616	Chemzymes Ultra Pure® Protease, <i>Staph aureus</i> (Endoproteinase Glu-C) for Sequencing
25617	Chemzymes Ultra Pure® Clostripain (Endoproteinase-Arg-C) for Sequencing
25618	Chemzymes Ultra Pure® Chymotrypsin, Alpha, TLCK Treated for Sequencing

Proteases for Tissue Dissociation & Protein Digestion

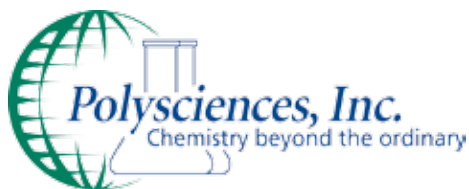
The Chemzymes Ultra Pure® Protease family offers a variety of proteases for tissue dislocation and protein digestion. Specific proteases include elastase, neutral protease (Dispase®), papain, pepsin A, proteinase K and trypsin. All proteases are lyophilized, and some are available as TPCK treated, chromatographically purified, filtered and two times crystallized.

Cat. #	Description
25619	Chemzymes Ultra Pure® Elastase, Purified
25620	Chemzymes Ultra Pure® Neutral Protease (Dispase®), Animal Origin Free
25621	Chemzymes Ultra Pure® Papain, Lyophilized
25622	Chemzymes Ultra Pure® Pepsin A
25623	Chemzymes Ultra Pure® Proteinase K
25624	Chemzymes Ultra Pure® Trypsin, TPCK Treated
25625	Chemzymes Ultra Pure® Trypsin, 0.22u Filtered

Animal Origin-Free Collagenases

Chemzymes Ultra Pure® Animal Origin-Free Collagenases are lyophilized bacterial collagenases that are designed to aid in the isolation of cells and tissue. These collagenases are grown in a medium completely devoid of animal based components and are designed for bioprocessing applications where the introduction of animal derived pathogens must be prevented. Chemzymes Ultra Pure® Animal Origin-Free Collagenases are available as Type A, which is designed to have collagenase and secondary proteases, Type B, which contains higher collagenase and caseinase activities than Type A and Type C, which has especially low tryptic activity. Two high activity collagenase-protease blends that are intended for stem cell and tissue bioprocessing are also available. Collagenases are offered unfiltered or filtered with a .22 micron membrane.

Cat. #	Description
25606	Chemzymes Ultra Pure® Collagenase, Animal Origin-Free, Type A
25607	Chemzymes Ultra Pure® Collagenase, Animal Origin-Free, Type A, 0.22 Filtered
25608	Chemzymes Ultra Pure® Collagenase, Animal Origin-Free, Type B
25609	Chemzymes Ultra Pure® Collagenase, Animal Origin-Free, Type B, 0.22 Filtered
25610	Chemzymes Ultra Pure® Collagenase, Animal Origin-Free, Type C
25611	Chemzymes Ultra Pure® Collagenase, Animal Origin-Free, Type C, 0.22 Filtered
25612	Chemzymes Ultra Pure®, 250 Collagenase / 1,000 Neutral Protease, 0.22 Filtered
25613	Chemzymes Ultra Pure®, 250 Collagenase / 2,000 Neutral Protease, 0.22 Filtered



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Private Label Capabilities for **Stains, Buffers & Reagents**

Polysciences, Inc. is an established supplier of custom, specialty and fine chemicals for customers in the medical devices, biotechnology and analytical chemistry industries. We have an experienced staff of Ph.D. production and synthesis chemists that can assist you in accomplishing your goals on time and within budget.

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- Fixatives
- Paraffins
- Embedding Molds
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QA/QC Microorganism Prep for Culture Purposes & Quality Control Applications

QC microorganisms are designed to be cost-effective and reliable microorganism preparations for cell cultures and microbiological quality control testing. Each microorganism is traceable to reference cultures to assure quality, and has a certificate of analysis that details phenotypic, macroscopic and microscopic test results. QC microorganisms do not require frozen storage conditions.



KWIK-STIK™

KWIK-STIK™ is a convenient package that includes a single microorganism strain in a lyophilized pellet, a reservoir of hydrating fluid, an inoculating swab, and a peel-off identification label. Forceps are not required during sample preparation, which reduces the risk of contamination. KWIK-STIK™ is available with a wide range of microorganisms and comes in a pack of 2.

Cat. #	Description
25543	Aspergillus brasiliensis ATCC® 16404™*
25545	Bacillus subtilis subsp. spizizenii ATCC® 6633™*
25546	Clostridium sporogenes ATCC® 19404™*
25549	Enterobacter cloacae subsp. cloacae ATCC® 35030™*
25551	Enterococcus faecalis ATCC® 19433™*
25553	Listeria monocytogenes ATCC® 19115™*
25555	Salmonella enterica subsp. enterica serovar Abony NCTC 6017
25558	Staphylococcus aureus subsp. aureus ATCC® 6538P™*
25560	Staphylococcus aureus subsp. aureus ATCC® 6538™*



LYFO DISK™

LYFO DISK™ is an economical reference stock option that contains a single strain microorganism. Each microorganism is in a lyophilized pellet that requires re-hydration before inoculation. A wide range of microorganisms are available, and each LYFO DISK™ is packaged as a re-sealable vial containing 6 pellets.

Cat. #	Description
25542	Aspergillus brasiliensis ATCC® 16404™*
25544	Bacillus subtilis subsp. spizizenii ATCC® 6633™*
25547	Clostridium sporogenes ATCC® 19404™*
25548	Enterobacter cloacae subsp. cloacae ATCC® 35030™*
25550	Enterococcus faecalis ATCC® 19433™*
25552	Listeria monocytogenes ATCC® 19115™*
25554	Salmonella enterica subsp. enterica serovar Abony NCTC 6017
25556	Salmonella enterica subsp. enterica serovar Typhimurium ATCC® 14028™*
25557	Staphylococcus aureus subsp. aureus ATCC® 6538P™*
25559	Staphylococcus aureus subsp. aureus ATCC® 6538™*


Quality Control Slides for Microbiology - Microbiologics®

Microbiology QC Slides come with one or two droplets of an air-dried and methanol-fixed organism, or a single smear containing a designated organism population. Slides support formal quality assurance programs by serving as quality control challenges to verify performance of stain reagents, staining methods, and the performance of personnel interpreting microscopic examinations.



Gram Stain Control Slide Microbiology Slides

Cat. #	Description
22251	Pneumocystis carinii Control Slide
25408	Cryptosporidium Control Slides
25409	Mycobacterium Control Slides
25410	Acid Fast Control Slides
25411	Blood Parasite Control Slides
25412	Pneumocystis carinii Two-Well Control Slides
25413	Protozoan (Zinc PVA) Control Slides
25415	Protozoan (SAF) Control Slides
25417	Gram Stain Control Slides (e. Coli & S. aureus)
25418	FYC (Culture Isolates) Control Slides
25419	MYC-D (Clinical Samples) Control Slides

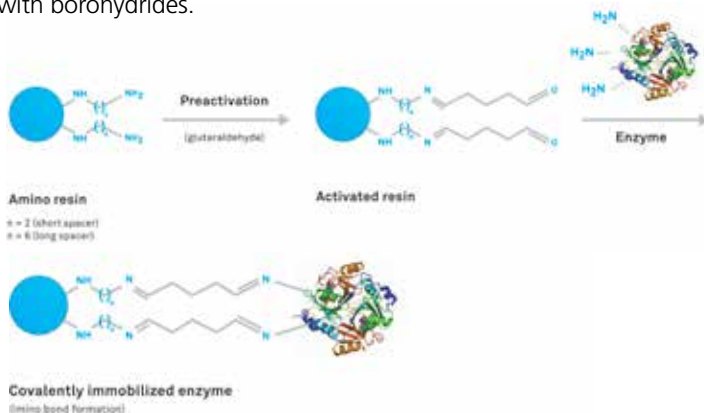
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Enzyme Carrier Resins (ECR) - Purolite®

Enzyme Carrier Resins attach to enzymes and hold them in place throughout the intended catalyzed reaction. Immobilized enzymes are powerful tools to optimize processes in both operative and economic terms. Immobilized enzymes can be easily separated from reaction products and can be reused. Ease of separation increases the simplicity and efficiency of enzyme reactions, while the reusability of the enzyme decreases the costs of downstream processing. Polysciences' Enzyme Carrier Resins are based on amine functionalized, epoxy functionalized and adsorption technologies. Resins are available in F or M grade, which refers to particle size ranges of 150-300 µm and 300-700 µm respectively.

Amine Functionalized Resins

Amine functionalized resins can be pre-activated by glutaraldehyde and then used in the covalent immobilization of enzymes. The reaction of the aldehyde groups with enzyme amino groups quickly forms Schiff bases, which give stable multipoint covalent binding. The linkage can be made more stable through reduction with borohydrides.



Cat. #	Description
50257	ECR8310F, Amino C2 Methacrylate ECR
50258	ECR8310M, Amino C2 Methacrylate ECR
50259	ECR8319F, Amino C2 Methacrylate ECR
50260	ECR8319M, Amino C2 Methacrylate ECR
50261	ECR8405F, Amino C6 Methacrylate ECR
50262	ECR8405M, Amino C6 Methacrylate ECR
50263	ECR8417F, Amino C6 Methacrylate ECR
50264	ECR8417M, Amino C6 Methacrylate ECR

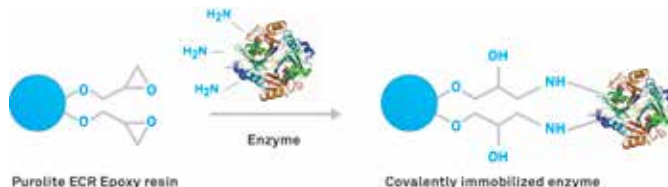
Enzyme Carrier Resin Kits

Enzyme Carrier Resins are also available in kits that feature multiple products. For kit component details, please visit: polysciences.com/ecrkits

Cat. #	Description
50269	PolyLink Amine Linker Kit - F50
50270	PolyLink Epoxy Linker Kit - F50
50271	PolyLink Enzyme Adsorption Kit - F50
50272	PolyLink Lipase Linker Kit - F50
50273	PolyLink Enzyme Linker Kit - F50
50275	PolyLink Amine Linker Kit with Columns and Reagents for Enzyme Immobilization
50279	PolyLink Epoxy Linker Kit with Columns and Reagents for Enzyme Immobilization

Epoxy Functionalized Resins

Epoxy Functionalized Resins allow multipoint covalent binding between the enzyme and resin, making them excellent Enzyme Carrier Resins. The high mechanical stability of Epoxy-Functionalized Resins allows the immobilized enzymes to be used in a stirred tank or bed reactor.



Cat. #	Description
50251	ECR4204F, Epoxy Methacrylate/Styrene ECR
50252	ECR4204M, Epoxy Methacrylate/Styrene ECR
50253	ECR8205F, Epoxy Methacrylate ECR
50254	ECR8205M, Epoxy Methacrylate ECR
50255	ECR8214F, Epoxy Methacrylate ECR
50256	ECR8214M, Epoxy Methacrylate ECR

Resins for Enzyme Adsorption

Enzymes can also be immobilized by physical adsorption of enzyme protein onto the surface of water-insoluble carriers. This method is very gentle and causes little or no conformational change of the enzyme or destruction of its active center. Adsorption is particularly suitable for applications in organic solvents or hydrophobic media such as oils. Usually no reagents are required for adsorption, which is a major advantage over other methods.



Cat. #	Description
50245	ECR1090F, Macroporous Styrene ECR
50246	ECR1090M, Macroporous Styrene ECR
50247	ECR1091F, Macroporous Styrene ECR
50248	ECR1091M, Macroporous Styrene ECR
50265	ECR8804F, Octadecyl Methacrylate ECR
50266	ECR8804M, Octadecyl Methacrylate ECR
50267	ECR8806F, Octadecyl Methacrylate ECR
50268	ECR8806M, Octadecyl Methacrylate ECR