



Primary Cell Specialists

We are a leading authority and global provider of primary human and animal cell types, complimented by optimized media and cell biology products to serve your research & development goals

cellapplications.com

Primary Cells

Primary Cells, derived directly from tissue, maintain physiological relevance and find increasing use in life science research and pharmaceutical drug discovery. In business since 1994, we have perfected the isolation, purification, subculture and growth of human and animal primary cells. Available options include proliferating or cryopreserved cells, 3D models, 96 well plated versions, disease models, or cells pre-screened for metabolic regulation markers and signal pathways.

CELL

Adipocyte Astrocyte Cardiomyocyte Chondrocyte Dendritic Dermal Papilla Endothelial **Epithelial** Fibroblast Hepatocyte Lymphocyte Macrophage Melanocyte Microglia Monocyte Mononuclear Neuron Preadipocyte Schwann Skeletal Muscle Smooth Muscle Stem Cell Synovicyte

Trabecular Meshwork

TISSUE

Airway Blood Bone Cardiac Eye Fat Hair Joint Liver Mammary Microvascular Muscle Nervous System Placenta Skin Umbilical Urogenital

SPECIES

Human Bovine Canine Chicken Feline Guinea Pig* Monkey Mouse Porcine Rabbit Rat Sheep*

*Custom

EXTENSIVE CELL TYPES, THOUSANDS OF **PUBLICATIONS**

Cited extensively in original, peer-reviewed research articles and patents



CELL-BASED PRODUCTS & SERVICES

Cell Isolation - We isolate, expand, freeze, document & test cells isolated from virtually any tissue or animal species

Cellular Disease Models - Asthma, COPD, Osteoarthritis, Rheumatoid Arthritis, Type 2 Diabetes and others by request

Cell Assays - Our team will conduct custom screening assays and provide a range of histochemical and molecular test results on cell cultures

Stem Cells - Generation of Induced Pluripotent Stem Cells and differentiation of iPSC derived cell lineages

Bioprinting - Advanced 3D bioprinting services are available that engineer three-dimensional tissues from primary cell spheroids, without the need for scaffolds

Pre-Screening - Cells confirmed positive for key signaling pathways to control variation, save time and improve the efficiency and accuracy of compound screening

RNA Preparation - We can prepare Total RNA and/or Poly A+RNA from the cell types or tissues you specify

GROWTH MEDIA & MEDIA KITS

All Media are Not Created Equally!

Each specialized medium is optimized for the unique requirements of its corresponding primary cell type. Carefully crafted, quality controlled CAI media are tested for sterility to confirm no bacteria, yeast or fungi contamination, and to ensure correct pH, osmolality and lack of endotoxins. A panel of different bioassays affirms each medium sustains the proper environment for culture, growth, plating, karyotype, physiology, morphology, viability, population doublings, surface markers, cryopreservation, differentiation and/or induction.



Convenience and Ease of Use

Our popular, all-in-one complete Growth Media arrive premixed and ready-to-use, with supplements tailored for cell type and application. To lengthen storage life or control the timing and/or amount of added proteins, nutrients, growth factors, serum or serum alternatives, most media are available in Kit format, with basal medium and supplements sold together and packaged separately. For even greater convenience, researchers can opt for a Cryopreserved Cell Total Kit, which contains not only a cryovial of frozen cells, but also all corresponding Media and Subculture Reagents.

For the Sub-Specialist in You

Need to specialize cell form and function into chondrocytes, osteoblasts, adipocytes, neurons or skeletal muscle cells? Or do you require media that alter cell behavior, shape, differentiation, mitotic activity, signal cascades or gene expression? Our Differentiation and Induction Media include step-by-step protocols to guide you through the process.

Cell type-specific media are available, such as HUVEC-Conditioned Media, Corne-Epi for epithelial eye cells, and EpiVita to increase population doublings and experiment duration of in vitro-cultured Human Epidermal Keratinocytes and Epithelial Cells.

Going Minimalist

Starvation Medium lacks serum, nutrients or growth factors, for use when cells need to be deprived prior to the experiment, or to synchronize the cell cycle. Certain experiments and drug discovery protocols require only known components, with medium Defined both chemically & by concentration. Others demand medium to be Serum-Free to avoid variability due to undefined animal components, or even Xeno-Free, devoid of animal- or human-derived components altogether. Is such cases, quality recombinant or synthetic versions stand in for serum, albumin, growth factors, amino acids, vitamins, lipids, insulin, etc.

It's all in the Details

Whether you need to Dissociate, Plate, Freeze or simply Maintain primary cell cultures, we've got you covered with decades of experience, protocols and formula optimizations that ensure optimal cell health and viability.

REAGENTS & SUPPLEMENTS

Subculture Reagents - HBSS, Typsin/EDTA Solution, Neutralization Solution, Lysis Buffer

Attachment Solutions and ECM - Cell-specific adhesion molecules include Poly-D-Lysine, Collagen, Fibronectin, Laminin & other extracellular matrix proteins

Bovine Insulin - A common growth supplement in cell culture

Fetal Bovine Serum - Cell culture-tested FBS as a standalone or utilized in our own media

Bovine Pituitary Extract - Full spectrum of mitogens and growth factors to promote robust growth

CUSTOM MEDIA PREPARATION SERVICE

We will craft media unique to any primary cell type or application, ensuring superior cell viability, doubling potential, physiology and reproducibility. Formulations contain optimal levels (or absence) of serum, growth factors, extracts, animal ingredients, ions, salts, glucose, antibiotics or phenol red. From small to large batches, we're happy to give you the very best.

Cell Biology Products

Cytofect™ Transfection Kits - Formulated for superior efficiency and cell viability

Cyto-X Cell Counting Kit - Ready-for-use cell viability reagent for proliferation and cytotoxicity assays

Cell & Tissue RNA - Purified total RNA ready for use in downstream applications

Gene Expression Kits - B-galactosidase Assay and X-Gal assay kits

ELISA Kits - Ready-to-use, scalable protein detection

Antibodies - Accurate protein detection for Western blotting, fluorescent cell staining, cell sorting & more

Cell Analysis Kits - Dil-Ac-LDL and MTT Assays

Growth Factors & Cytokines - Pure, bioactive, cell culture grade recombinant proteins, including animal componentfree versions

ULTIMATE TOOLBOX • PERFORMANCE TESTED • ACCURATE • REPRODUCIBLE

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