

Drug  
discovery and  
development  
tailor-made.



revvity

Custom discovery reagent and assay services



# Solutions tailored to the way you work now

Most labs are challenged to keep pace with the sheer volumes of samples they process, day in and day out. Add to that the arduous work of labeling sample material, developing custom assays, preparing radiochemicals, and coating microplates, and you can see why even the best-run labs can feel overwhelmed.

But with our Custom Discovery Reagent and Assay Services, you can get back to performing core research, without having to syphon off valuable resources for everyday lab work.

With more than 30 years' experience in custom laboratory services, and thousands of assays developed in our labs, we're the right choice for all your development and screening needs. Our experts are proficient at labeling multiple types of molecules, employ a straightforward assay development process, and can test large quantities of materials for full screens or long-term use in quality-control assays. Our scientists can deliver tailored radiosynthesis services, preparing custom radiochemicals that comply with rigorous ISO standards. Plus, we can deliver custom microplate coating and barcoding services, too.

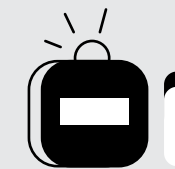
And whatever services you choose, you'll benefit from quick, accurate timelines - and more time for your core science.



Unmatched customer relationships



Expert scientific staff for enhanced support



Best-in-class custom capabilities

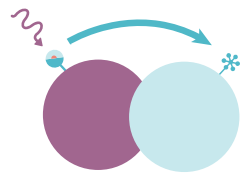


Global laboratory locations



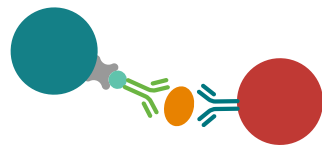
# Assay development your way

A key aspect of our custom Assay Development Service is the scientist-to-scientist interaction you receive, from the start of your project to its successful completion. Our aim is to make custom assay development simpler and easier for scientists doing drug discovery and development, with:



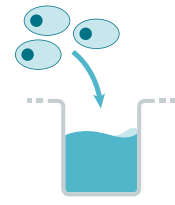
**Biochemical assays**

We use only optimized reagents for enzyme assays, protein quantification, or protein-protein interaction assays to elucidate your target's biology.



**ELISA conversion**


We can convert any ELISA assays into efficient AlphaLISA® or HTRF® formats, for maximum precision, improved CVs, and simplified workflows.



**Cell-based assays**

Our reagents are carefully selected and optimized on your lysates to ensure consistent, reliable, high-quality results for your preferred cell model.

## We make development easy



1. A dedicated project manager who performs a feasibility study



2. An accurate project timeline



3. Assay development services



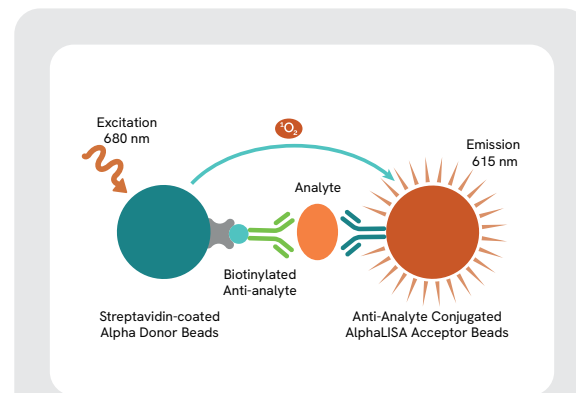
4. A final report of services and results



5. Assay transfer

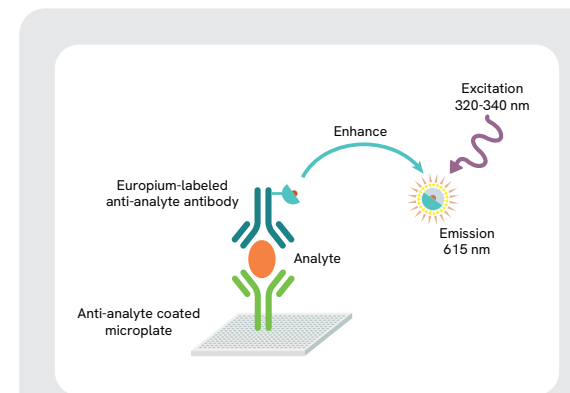
# Assay development technologies

Our diverse portfolio of custom assays are available in the technology of your choice for a range of applications, from autoimmunity to virology. These technologies work with traditional methods and are highly sensitive and easy to use.



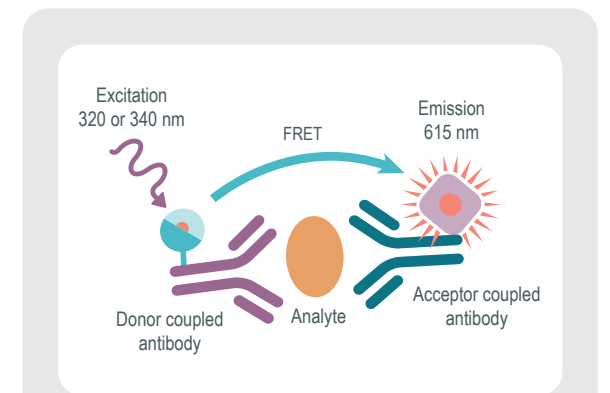
## AlphaLISA

AlphaLISA is a bead-based, no-wash, nonradioactive, homogeneous proximity assay technology used to study biomolecular interactions in a microplate format.



## DELFLIA

DELFLIA® is a wash-based time-resolved fluorescence (TRF) intensity technology that's compatible with a variety of plate readers and most sample types.



## HTRF

HTRF is a no-wash technology that combines standard FRET technology with time-resolved fluorescence measurement, eliminating short-lived background fluorescence.

# Labeling that fits your science

With a vast portfolio of labeling techniques, linkers, and dyes, we can deliver the best custom labeling options to fit your needs. You simply select the right technology and send us your material to be labeled, and our experts handle the entire process - and keep you updated every step of the way. We offer:

Efficient labeling of multiple types of molecules

Conjugation through a variety of functional groups

Test size      Batch size

Reliable chemistry optimization with optional challenge-ratio labeling prior to scaleup

Quick and accurate timelines

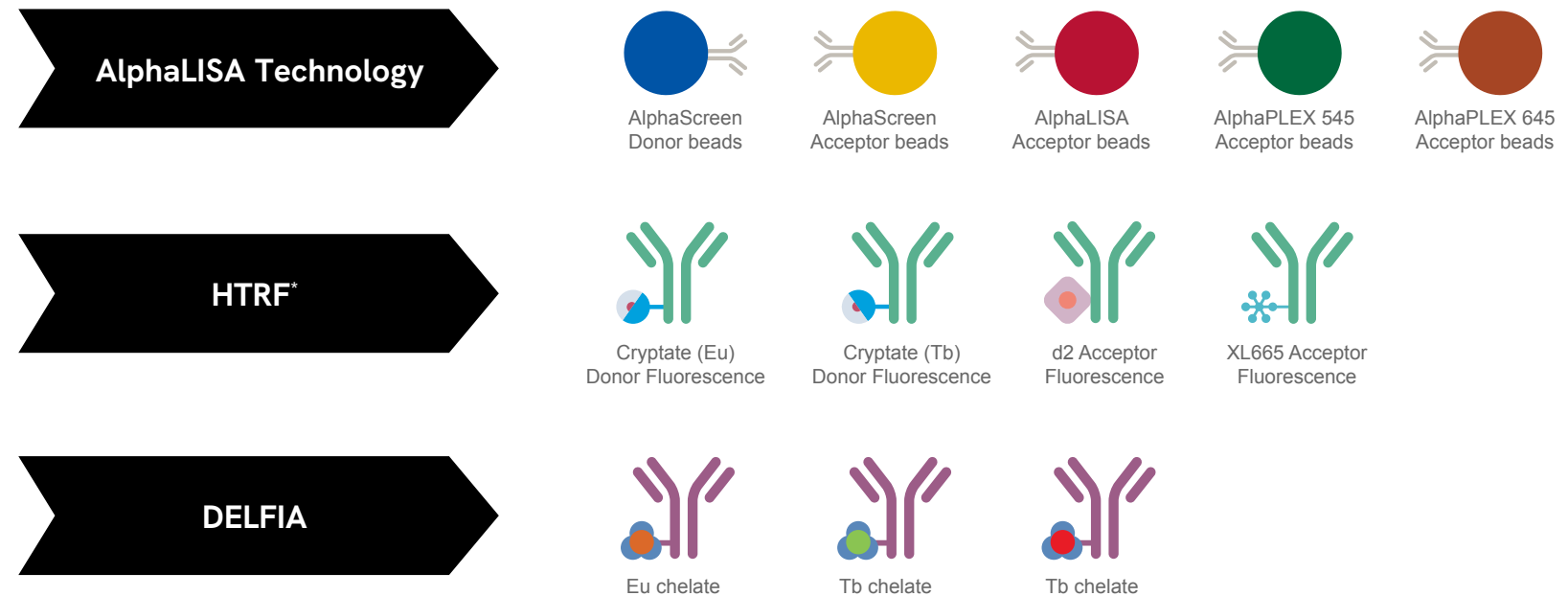
## We make labeling easy

1. Select your preferred technology
2. Send us your material
3. Track our progress
4. Receive your labeled materials



# Custom labeling technologies

Our labeling techniques and technologies allow us to label many types of material, with the best options to fit your needs, including proteins, peptides, antibodies, small molecules, and oligonucleotides.\*



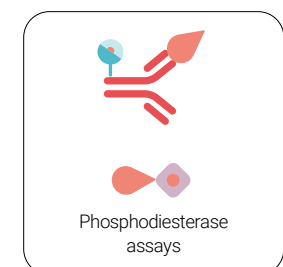
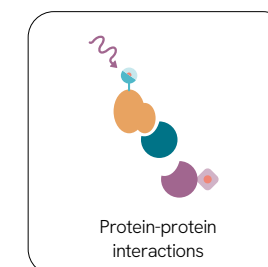
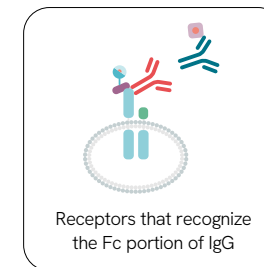
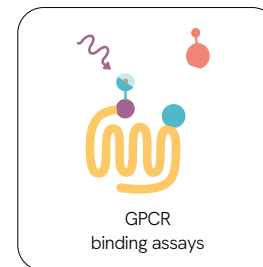
\*Other TR-FRET labels are available, including Europium Chelate and ULight™



# Customized and targeted profiling and screening

Our profiling and screening services allow us to run your material using biochemical and cellular assays selected from our catalogue or designed by our assay development scientists. Services include compound profiling, biomarker detection and immunoassays, sample testing, and pilot studies covering:

- GPCR functional/binding
- Immune checkpoint assays
- Phosphoprotein detection
- Cytokine secretion
- FcR binding
- Biochemical enzymatic assays
- Cell proliferation



## We make screening easy



1. Select your assay



2. Send us your components

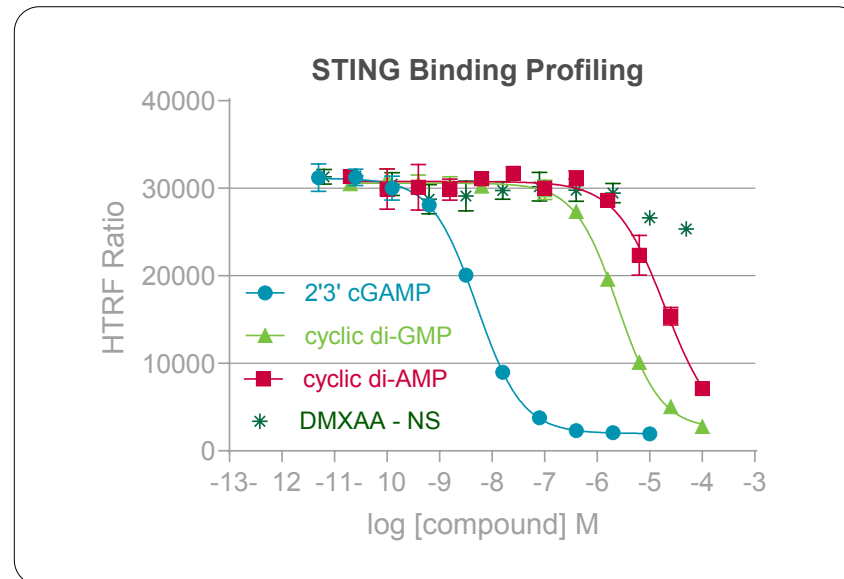


3. Track our progress



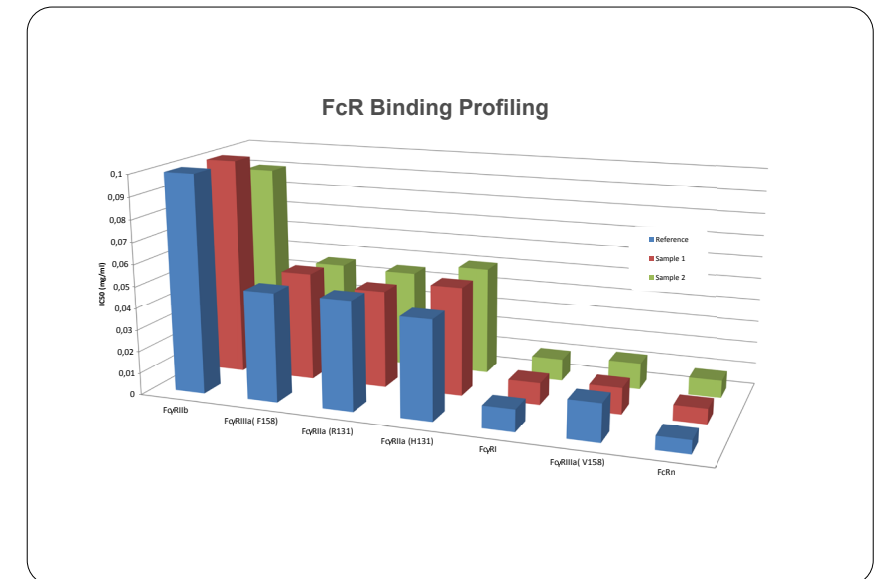
4. Review results with our experts

# Binding profile data samples



## STING binding

- Testing your compounds on STING binding assay
- Human and mouse available
- Single concentration or full-dose response
- Full report available
- Fast turnaround



## FcR binding

- Multiple samples tested across seven receptors
- Multiple full-dose response curves
- Potency determination available in complete report (with access to raw data)
- Data delivery in one to two weeks



# Experienced radiosynthesis and radiolabeling services

Our experienced chemists work with you - scientist to scientist - to design and prepare your custom compounds. During the specification process and after delivery, you'll have access to our extensive technical support resources to ensure your custom product meets your requirements and applications. And we develop and manufacture custom products under an ISO 9001:2015 registered system, ensuring consistent quality and reliable traceability.

|   | ISO 9001:2015 | Technical data sheets | Total activity measurement | Specific activity measurement | Radiochemical purity or synthesis | Chiral separation | GMP (upon request) |
|---|---------------|-----------------------|----------------------------|-------------------------------|-----------------------------------|-------------------|--------------------|
| <sup>14</sup> C and <sup>3</sup> H Custom Synthesis | •             | •                     | •                          | •                             | •                                 | •                 | •                  |
| <b><sup>125</sup>I Radioiodination</b>              |               |                       |                            |                               |                                   |                   |                    |
| Bolton-Hunter Reagent                               | •             | •                     | •                          | •                             | •                                 | •                 |                    |
| Chloramine-T  | •             | •                     | •                          | •                             | •                                 | •                 |                    |
| IODOGEN® Reagent                                    | •             | •                     | •                          | •                             | •                                 | •                 |                    |
| Lactoperoxidase                                     | •             | •                     | •                          | •                             | •                                 | •                 |                    |
| Custom Labeling Methods                             | •             | •                     | •                          | •                             | •                                 | •                 |                    |
| <b>Tritium Labeling Services</b>                    |               |                       |                            |                               |                                   |                   |                    |
| Catalytic Reduction with Tritium Gas                | •             | •                     | •                          |                               |                                   |                   |                    |
| Reduction with Sodium Borohydride, <sup>[3</sup> H] | •             | •                     | •                          |                               |                                   |                   |                    |
| Catalytic Exchange with Tritium Gas                 | •             | •                     | •                          |                               |                                   |                   |                    |
| Tritium Gas Exposure                                | •             | •                     | •                          |                               |                                   |                   |                    |
| <sup>14</sup> C-Labeled Custom Precursors           | •             | •                     | •                          | •                             | •                                 | •                 |                    |

### Tritium labeling

This cost-effective solution for preparing a <sup>3</sup>H labeled radiochemical includes precursor reaction according to labeling method; removal of catalyst and labile tritium from the resulting crude product; and assay of the product for total radioactivity.

### Radiiodination

We label your compound with <sup>125</sup>I using the appropriate radioiodination method and reagent quantities. We can also perform large-scale iodinations (>10 mCi).

### Radionucleotide synthesis

We can synthesize and package radiolabeled mono-, di-, and triphosphate nucleotides, and other biochemicals on a made-to-order basis; label nucleotides in different positions; and synthesize labeled oligos for hybridization.

### <sup>14</sup>C GMP\* synthesis capabilities

To assure compliance and to help meet aggressive deadlines, our labs offer GMP synthesis and analysis for Phase 0 and Phase 1 clinical studies. During drug development, regulatory bodies require that ADME studies be conducted as Phase 1 investigations before clinical trials – and we have decades of experience supporting these studies with GMP radiolabeled APIs.

### Custom <sup>3</sup>H, <sup>14</sup>C, <sup>35</sup>S synthesis

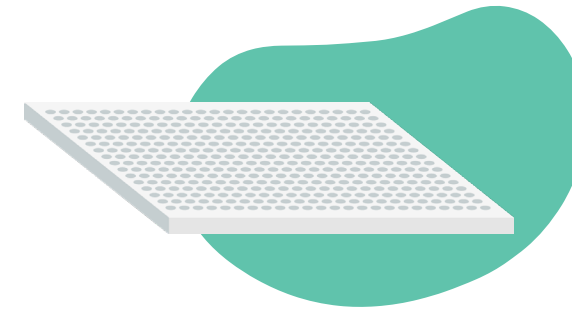
We're experts in dealing with the technically challenging synthesis of radiolabeled biochemicals, including peptides, steroids, sulfonamides, and lipids. And we collaborate with our analytical labs to ensure the successful purification and analysis of final products.

\*GMP capabilities consistent with ICH Q7 Good Manufacturing Practice Guidance for Active Pharmaceutical Ingredients (section 19), Sept. 2016



# Microplate services: the foundation of good science

To ensure that your microplates are maximizing your success, we can use your coating process, modify existing formulations, or develop a unique process tailored to you. High-quality barcode labels are also available.



## Coatings for culturing cells

Our microplates undergo special physical surface treatments that result in enhanced cell attachment:

- **Tissue-culture (TC)** - Allows for cell attachment and binding to the bottom surface of the microplate (for adherent cells)
- **Poly-D-lysine (PDL)** - Enhances cell attachment and binding for cells that are difficult to attach or when wash steps are needed
- **Collagen (COL)** - Promotes cell attachment and proliferation when keratinocytes and hepatocytes are used
- **Ultralow attachment (ULA)** - For further reduction of nonspecific binding, used in cell-colony high-content screening assays, 3D cultures, and other imaging applications

## Immunological coatings

For immunology-based applications, immobilization of biomolecules to the well surface is usually required. We offer three types of surfaces:

- **High binding (HB)** - Allows for capturing proteins and antibodies to the microplate, for washed-based assays

- **Low binding (LB)** - Results in reduced binding to proteins and nucleic acids for biochemical assays
- **Streptavidin coating** - Perfect for time-resolved fluorescence applications

## Custom microplate barcoding

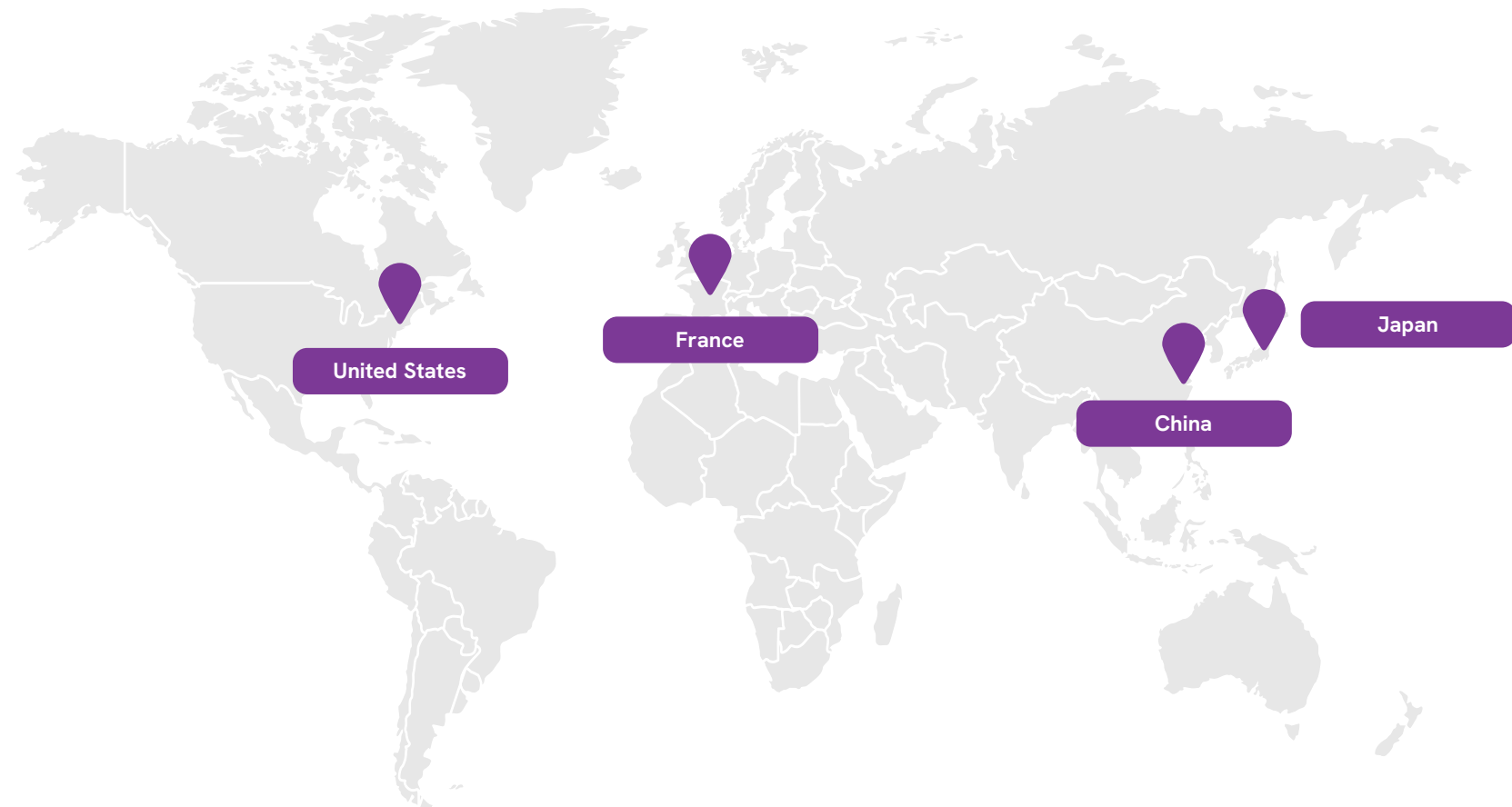
Our microplates can be supplied with high-quality barcode labels. Waterproof, scratchproof, and DMSO-resistant, these plastic labels withstand temperatures up to -80 °C. and are available in different label formats and barcode types. And we can label all microplate sides, with multiple labels per plate, which can include custom sequences and information.

In addition, custom sterilization services are also available to ensure a constant supply of sterile microplates. In addition, bulk ordering and special packaging requirements can also be accommodated.



# We're wherever you are

We have laboratories located across the globe, enabling us to tailor solutions to your specific needs, shorten turnaround times, and give your science the dedicated attention it deserves.\*



\*Laboratory offerings vary depending on location.



# Reagents and consumables complete the solution

## Research radiochemicals

Radiometric detection is considered the gold standard for applications in drug discovery and development. As a leading supplier of research radiochemicals, we offer a broad portfolio of products for any radiochemistry need.

## Reagents for drug discovery

Our reagents cover everything from immunoassays and kinase assays to reporter gene, cytotoxicity, and cell proliferation assays. Our easy-to-use platforms provide greater sensitivity, wide dynamic range, and reduced background.

## Reagents for cell imaging

Our PhenoVue™ suite of cellular imaging reagents - from cell-painting kits to organelle and cell-compartment stains to fluorescent-labeled secondary antibodies - complements our proven high-content screening instruments and image analysis software.

## Microplates

Our microplates have been engineered to deliver the highest quality data for everything from high-throughput screening to cellular imaging. And they're available in many well formats, plastic types, coatings, and colors.

## Scintillation cocktails

Our liquid scintillation cocktails are convenient, easy-to-use, save preparation time, and minimize laboratory errors. Our carefully controlled scintillant-blending and quality-assurance procedures provide the highest performance, batch homogeneity, and lot-to-lot uniformity for accurate liquid scintillation counting.

## Biological and analytical vials

Our vials, caps, and septa are made from the highest quality materials, perfect for all your analytical and biological applications. Our glass vials are chemically inert, making them suitable for use with aggressive reagents and solubilizers; offer good visibility; and prevent solvent permeation. Our plastic vials deliver the lowest background and high counting efficiency and are combustible for easier disposal.



# Solutions built on advanced technologies

## Automated cell counting

You can measure live-cell concentration, viability, and cell size distribution in a single cell, or in multiple cell samples simultaneously, and perform trypan- or advanced fluorescence-based viability assays. And you can automatically capture and document cell images and size histogram reports to monitor cell-line quality for efficient and reliable workflows.

## Multimode plate readers

Our multimode microplate readers offer all major detection modes, plus well-imaging, making them ideal solutions for cell viability/proliferation/toxicity, drug screening, pathway analysis, receptor panning, biomarkers, protein-protein interaction gene expression, and more.

## Liquid handling

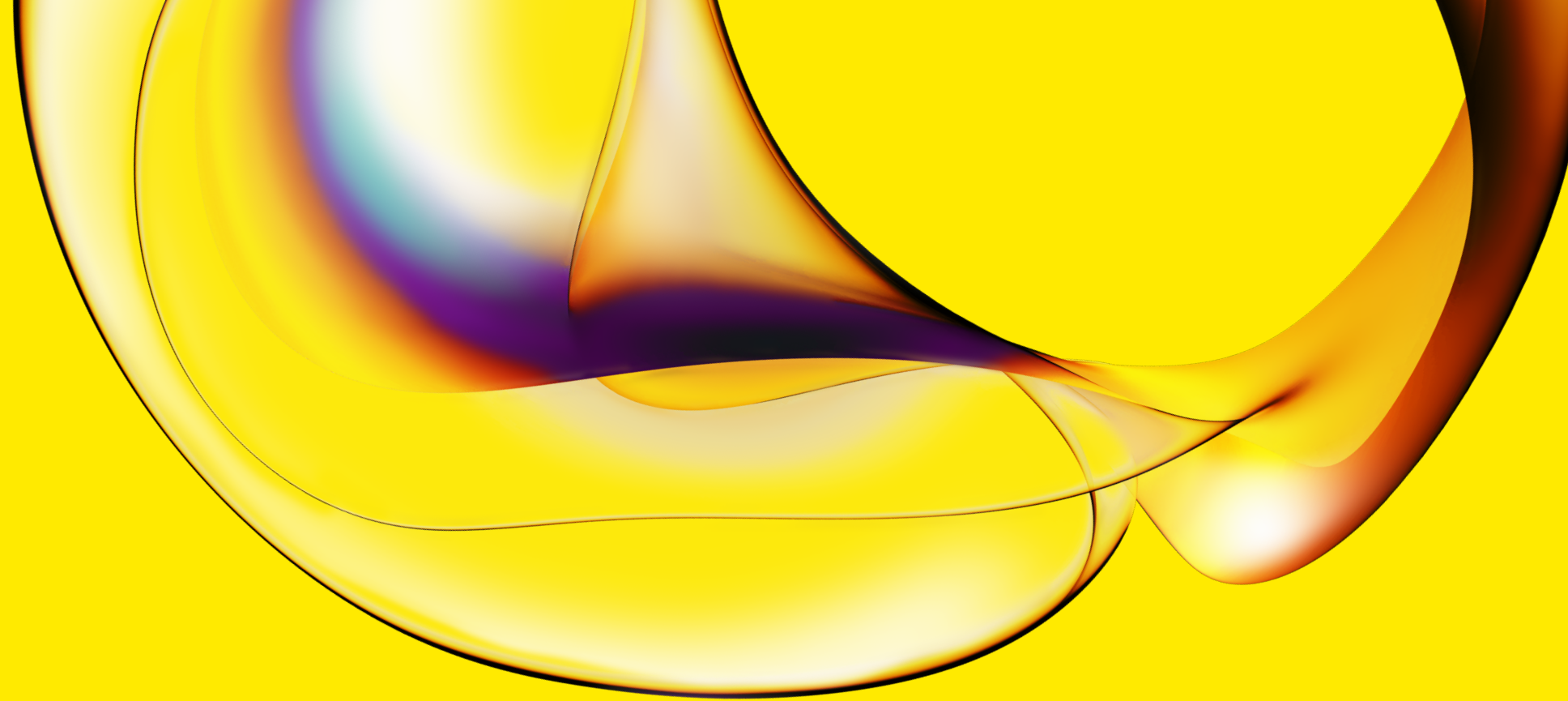
Designed for a variety of applications and highly customizable, our innovative automated liquid handling solutions enable you to minimize errors, reduce hands-on time, and increase throughput and reproducibility.

## High-content screening

With powerful yet simple imaging and analysis capabilities for a wide range of applications -- from basic research to assay development and screening -- these powerful systems produce the highest possible image quality to take your research further.

## Live-Cell Imaging

The MuviCyte™ live-cell imaging system operates inside your cell-culture incubator, enabling you to maintain your cells under optimal conditions and perform a wide range of assays in a variety of culture vessels, for a deeper understanding of functions, disease mechanisms, and responses to treatments.



[www.revivity.com](http://www.revivity.com)

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