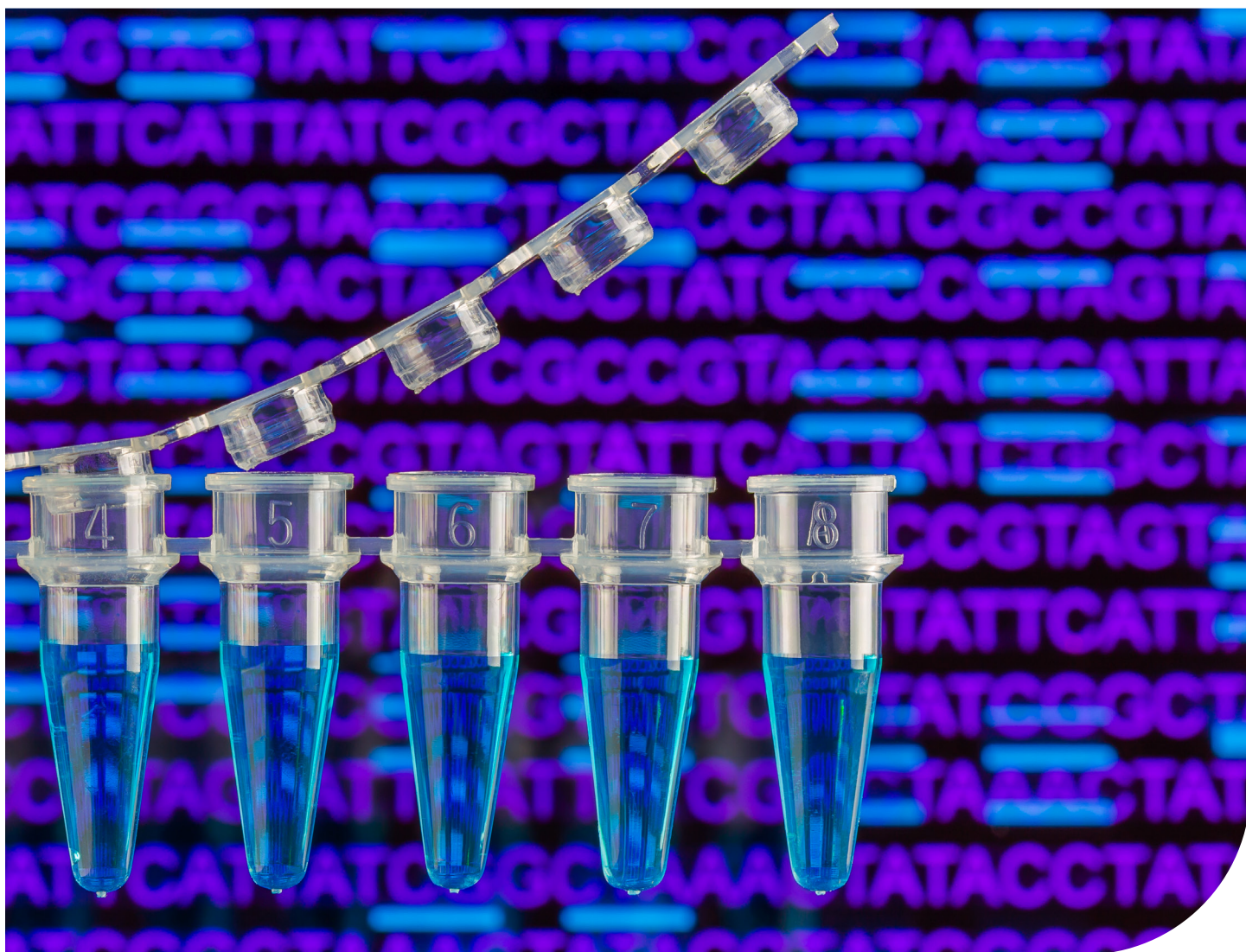


Custom Reagents and Services for Molecular Diagnostics



At Fortis® we pride ourselves

in having more than a decade of technical expertise for contract development and manufacturing of fit-for-purpose reagents to support various genomics and life science applications, including molecular diagnostics assay and platform development, cancer diagnostics, veterinary medicine, biotechnology, food safety, agriculture, CRO/CDMO, reference labs, and more.

We offer an extensive library of premium-quality enzymes and enzyme-based solutions that can be provided in custom formats, including bulk, lyo-ready, custom master mixes, complete custom assay kits, and solutions for:

- PCR/qPCR/RT-PCR/dPCR
- *In-vitro* transcription
- Gene editing
- Genotyping
- DNA modification
- Next generation sequencing
- Cloning solutions
- Isothermal amplification
- Sample and library preparation

When partnering with Fortis on custom projects, a team of experts will work with you to first understand your application. Once we define the project scope and functional requirements of the product including performance, scale, affordability, and format, we work with you to provide a fit-for-purpose solution to meet these requirements. We collaborate with you as your enzymology and manufacturing experts on the project to design, develop, manufacture, and validate solutions for your specific application.

Our Custom Services

- **Custom Formulation:** For those who need our standard catalog products in a different concentration or a lyo-ready format.
- **Custom QC Specification:** For those who need to add or modify QC specifications to an existing catalog product.
- **Custom Scale:** For those who need a custom dispense or a product in a different volume.
- **Custom Enzymes:** For those who need a custom enzyme, master mix, or reagents that require validation from manufacturing and quality control.

Our Quality Standards

Our quality system drives everything we do. At our **ISO 13485:2016 certified** facility, we operate under the most rigorous quality system requirements, from early-stage development to tech transfer, scale-up, verification, validation, and commercialization of production.

Why Partner With Us?

- We offer **scientist-to-scientist collaboration** throughout your entire project.
- We have a **vertically integrated supply chain** and validated manufacturing systems.
- Our manufacturing SOPs are **validated within our quality management systems** to **minimize lot-to-lot variability** and ensure traceability.
- We provide **single-lot manufacturing** at scale, concentration, and formulation for your unique application.
- We are highly experienced in providing **solid-phase compatible reagents**, custom-formulated in both air-dry and lyophilization-ready formats.
- We offer **GMP manufacturing** in our **ISO 13485:2016 certified** facility.

Here is what some of our customers are saying:

“

Huge thanks to all at Fortis for your efforts in facilitating the CE marking of our RT-qPCR assays... your thorough and professional approach – and your speedy responses to the many (many) queries we had over the last couple of weeks in particular – were very much appreciated, and critical to getting the projects over the line.

– Molecular Diagnostics Kit Manufacturer

”

“

The team at Empirical were superbly responsive to our requests and timeline constraints. The finalised PC assay... is going to be a real game changer for patients. It has the potential to allow for ambient temperature shipment globally and incorporates automatic PR contamination control.

– Molecular Diagnostics Kit Manufacturer

”

“

Empirical Bioscience has been an incredible partner. Their role in developing one of the key parts of assays for our bespoke point of care cartridge during the pandemic has been instrumental to our success. Built on that, our collaboration carries on for more exciting projects. Reliability, dedication, can-do attitude, along with professional expertise, vast resources, and attention to customers' needs, built by brilliant people and strong culture, makes Empirical Bioscience a lifelong business partner.

– Molecular Diagnostic Assay Developer

”

For more information about our products visit us at: fortislife.com/molecular-biology-reagents

Empirical Biosciences® is now a Fortis Life Sciences Company

Molecular Biology Reagents for Various Applications

Our team has the expertise to support molecular biology applications in a variety of fields, including clinical and point-of-care diagnostics, biotechnology, veterinary medicine, and food safety.

Nucleic Acid Amplification

Our collection of mesophilic and thermophilic DNA and RNA polymerases enables nucleic acid amplification across a wide range of sample types and conditions. We offer a variety of hot-start modification options, including antibody-mediated and chemical inactivation, to ensure optimal performance. Storage conditions, concentrations, and reaction buffers can be optimized to suit your unique application or formulate a custom master mix to address your needs.

Polymerases

Taq

Bst Prime

Cyclenase

Thermophilic pyrophosphatase

T4 DNA Polymerase

T7 RNA Polymerase

T7 R&DNA Polymerase

Phi29 DNA Polymerase

Phu-50 High Fidelity Polymerase

Ultra High-Fidelity Polymerase

Uracil Tolerant High-Fidelity Polymerase

Uracil Tolerant Ultra High-Fidelity Polymerase

Applications

- PCR / aPCR
- Cloning
- Sanger sequencing
- LAMP/RT-LAMP
- Whole-genome amplification
- NGS library prep
- *In-vitro* transcription

Reverse Transcription

We offer multiple reverse transcriptases and accessory proteins to support a variety of reverse transcription applications. From RNA quantification to cDNA synthesis, our products are guaranteed to provide you with accurate and reliable results every time.

Enzymes & Associated Proteins

RTScript™

IsoReverse Transcriptase

RNase Inhibitor Murine

Human RNase Inhibitor

RNaseH

Single-strand DNA binding proteins

Applications

- RT-qPCR
- RT-LAMP
- cDNA cloning
- CDNA library synthesis
- RNaseA library prep

Carry-Over Contaminant Prevention

Amplicon carryover contamination presents a significant risk in settings where Loop Mediated Isothermal Amplification and PCR experiments are performed, particularly in high-throughput clinical settings. We offer a variety of UDG enzymes to minimize contamination risk and ensure accurate downstream results. Additionally, we have the capability to formulate master mixes containing UDG and uracil, specifically designed for this purpose.

Enzymes

E. coli UNG

Thermolabile UDG

Cod UNG

dUTP-containing custom PC master mixes

Applications

- Amplification carryover prevention
- FFPE DNA library prep

NGS Library Prep

We offer a variety of precision enzymes commonly utilized in library preparation workflows, and the expertise to custom formulate them based on the specific needs of your workflow.

Polymerases

Fragmentase Mix

Pre-Amp PC Master Mixes

T4 DNA Ligase-High Concentration

T4 DNA Polymerase

Tn5 Transposase

Proteinase K

Phi29 DNA Polymerase

Phi29 DNA Polymerase

Ultra High-Fidelity Polymerase

Uracil Tolerant High-Fidelity Polymerase

Uracil Tolerant Ultra High-Fidelity Polymerase

Applications

- Whole genome amplification
- Sample DNA fragmentation
- End polishing
- NGS library amplification
- Ligation-based NGS library prep

Cas/CRISPR Technologies

We offer wild-type Cas9, Cas12, and Cas13 enzymes. Additionally, we have extensive experience manufacturing custom enzymes under our ISO 13485:2016 certified quality system. Our products and systems are designed to help you achieve optimal results in your applications.

Enzymes & Associated Proteins

SpCas9

AsCas12a

LbCas12a

LsCas13

LwCas13

Custom enzymes

Applications

- Genome modification (knock-outs, knock-ins, point mutations)
- RNA-mediated gene silencing
- CRISPR diagnostics

Custom Reagent & Kit Development to Fill-Finish Services

We pride ourselves on providing world-class custom services and expertise. We always start with the end goal in mind, ensuring that we deliver results that meet your expectations. Whether you need help with custom enzyme development, custom master mixes, custom kit manufacturing, or fill-finish manufacturing, our team of experts is here to guide you every step of the way.

Trust us to help you achieve your goals and take your business to the next level!

Custom Enzyme Development

We offer custom protein/enzyme design, development, and manufacturing with a vertically integrated supply chain and a collaborative approach to optimize conditions for high-quality production. We can support you at all stages of the development workflow, prioritizing quality control throughout the process.

Custom Master Mixes

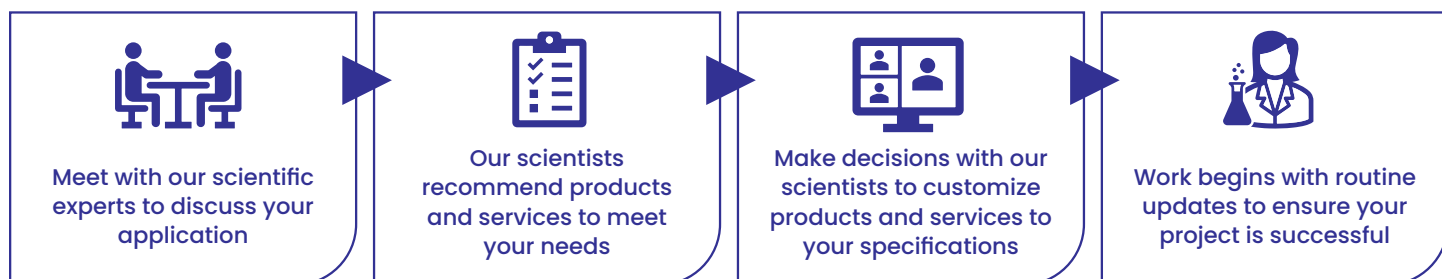
We have extensive experience in PCR/qPCR/RT-PCR applications, enabling our team to formulate custom master mixes using available enzymes or develop new formulations to address your specific needs. We follow a collaborative approach throughout the project to ensure your input is incorporated into the development and quality control process.

Custom Kit Manufacturing

We offer expertise in manufacturing complete assay solutions with strict quality requirements and regulations, using existing enzymes and master mixes to develop white-label kits, or modifying volume, components, and packaging specifications to meet your specific needs. This includes kitting options as well as design and prototyping, all backed by our quality management system. We also offer fill-finish manufacturing, providing reliable and efficient production services for your diagnostics test development.

At Fortis Life Sciences, our top priority is you, the customer. We take a personalized approach to our services, working closely with you to understand your unique goals and requirements. Using our expertise and careful consideration, we develop a tailored solution to meet your specific needs.

Our Consultative Approach



For more information about our products visit us at: fortislife.com/molecular-biology-reagents

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