

Scientific excellence across
multiple specialties?

We I.V.DO that™

Medix Biochemica

Medix Biochemica Group is globally recognized as a leading supplier to the in vitro diagnostic (IVD) industry

Interdisciplinary excellence

Our reputation is centered on our broad portfolio of critical raw materials for IVD tests, which includes high-quality antibodies, antigens, biologicals, and molecular biology reagents. But we I.V.Do far more than simply develop and manufacture essential IVD products. We're also renowned for our scientific excellence, which spans multiple specialties to help bring your product to market sooner. Whatever the status of your project, you can depend on us for established expertise, customizable end-to-end services, and dedicated support to align with your unique requirements.



Novel mAb discovery

Our antibody R&D teams employ a diverse suite of technologies to ensure even difficult targets are covered. Our monoclonal antibody capabilities are ideally suited to candidate discovery for ELISA, lateral flow, flow cytometry, and imaging applications.

- **Mouse hybridoma development** – including intelligent immunogen design, thorough functional antibody characterization (e.g., specificity, affinity, biological activity), and real-time stability assessment, as well as cell line adaptation to large-scale serum-free in vitro manufacturing processes
- **Phage display** – extended novel antibody discovery options beyond traditional hybridoma methods using scFv and Fab approaches
- **Antibody generation against difficult targets** – rabbit and llama hosts are available for antigens with low immunogenic potential
- **Rigorous functional screening** – including specificity, kinetics, cross-reactivity, affinity, and pair testing, as well as validation with patient sample material

[medixbiochemica.com](https://www.medixbiochemica.com)

Recombinant mAb and antibody variant development

We offer a comprehensive selection of recombinant design and engineering services to streamline monoclonal antibody development and enhance performance.

- **Multiple gene identification approaches – hybridoma sequencing, antibody sequencing, native and immune antibody library screening**
- **Optimized expression host – our Chinese hamster ovary (CHO) cell line is engineered for suspension growth and features a glutamine synthetase knock-out for genetic selection, allowing stable cell line production in as little as 6 months**
- **Rigorous functional screening – including specificity, kinetics, cross-reactivity, affinity, and pair testing, as well as validation with patient sample material**
- **Antibody engineering – covering isotype switching, reformatting (e.g., scFv, Diabody, Fab, VHH-Fc), performance**

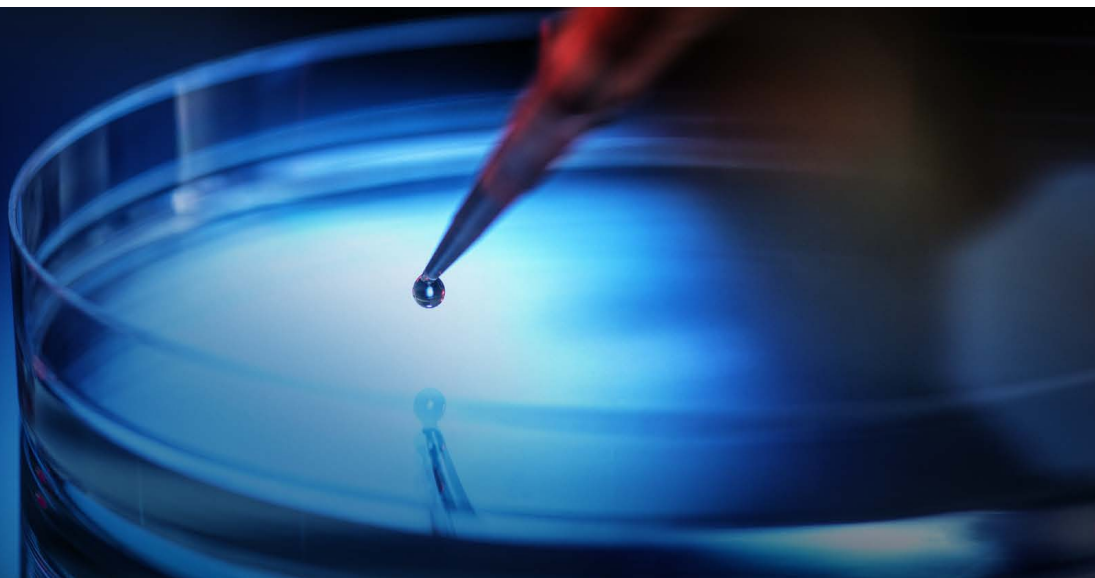
DNA polymerase engineering

Our molecular diagnostics division, MedixMDx, uses novel engineering strategies to develop DNA-dependent and RNA-dependent DNA polymerase enzymes, providing increased robustness, thermostability, and high fidelity for multiple applications. Our unique polymerases have been specifically engineered for the most challenging applications in molecular biology through directed artificial evolution. Our performant R&D approaches and services include:

- **Mutant library generation – random mutagenesis, sequencing, activity screening**
- **Custom services – bespoke polymerase engineering, assay development, customized lyophilization**
- **Advice and support – applications and technologies: (q)PCR, RT-(q)PCR, isothermal nucleic acid amplification technology, microarrays, NGS and allele-specific PCR**

Our track record in DNA polymerase engineering is exemplified by:

- **Volcano product family - a new generation of highly thermostable reverse transcriptase enzymes that enables reverse transcription direct from sample material and can be used for PCR-based SARS-CoV-2 detection without the need for RNA extraction**
- **HiDi® DNA polymerase – two versions of a DNA polymerase that provide high discrimination of mismatches at the 3'-terminus of PCR primers for genotyping direct from sample material, including via techniques such as allele-specific PCR, CRISPR-Cas and TALEN**



Scalable manufacturing

By employing scalable manufacturing processes across all our sites, we can supply any of our products at a quantity that meets your needs without compromising on quality or performance.

- **Fully scalable production – including antibody manufacturing, native protein purification and extraction, and production of other critical raw materials**
- **ISO certification across all manufacturing sites assures batch-to-batch consistency for highly reproducible results**
- **Flexible manufacturing – scale up production to meet changing demand**

Biological matrix production

With a proven track record in large scale and custom plasma processing for biological matrix production, we are a trusted partner to those developing and manufacturing IVD tests.

- **Standard matrix formulations – serum constituents can be adjusted to the normal human range and individual plasma units screened for target analyte concentrations prior to pooling or processing**
- **Custom matrix formulations – including delipidation, removal of specific analytes, and delivery of albumin-based formulations**
- **Scalable production – all biological matrix formulations can be supplied in bulk amounts if required**

Your partner of choice

Whatever the aim of your project, Medix Biochemica Group will support you every step of the way – from discovery through to commercialization. Contact us today to discuss how you can best leverage our scientific capabilities and expertise to support your unique requirements:

sales@medixbiochemica.com

