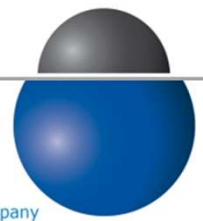


INVIVO

BioTech Services GmbH

a BRUKER company



Cost-effective solutions
Recombinant proteins
Bacterial expression Preclinical Proprietary media
Customer satisfaction
Immunoassays Mammalian cells
Quality
Purity ELISA High cell-density
Transfection Supplier Germany
Service
Know-how Berlin
Purification Excellence
Serum-free
Bioproduction
Difficult-to-express proteins
Monoclonal antibodies
Immunization Endotoxin-free Large scale Human
Aggretate-free Development Productivity
Scientific experts
Yield DNA
Cell culture E. coli Rabbit
Custom Manufacturing
Stable cell lines Experience CHO
Specifications DNA synthesis
ISO 9001 IgM Rat HEK293 **ISO 13485**
Outsourcing solutions Vector design InVEST Fermentation Small scale
Antibody-on-Demand

Hybridoma
Affinity chromatography
Transient expression
Competence Research
Mouse
Optimization

HISTORY

INVIVO BIOTECH SERVICES

ONE OF THE LEADING CONTRACT MANUFACTURING
ORGANIZATIONS IN EUROPE



InVivo was founded in 1998 and is proud of more than 20 years of experience in mammalian cell culture and the production of high-quality antibodies and recombinant proteins.

Based in Hennigsdorf just outside Berlin, the company has consistently grown over time and exhibits today approximately 2200 square meters of laboratory space with state of the art technical equipment. The 65+ employees possess a strong scientific and biochemical expertise.

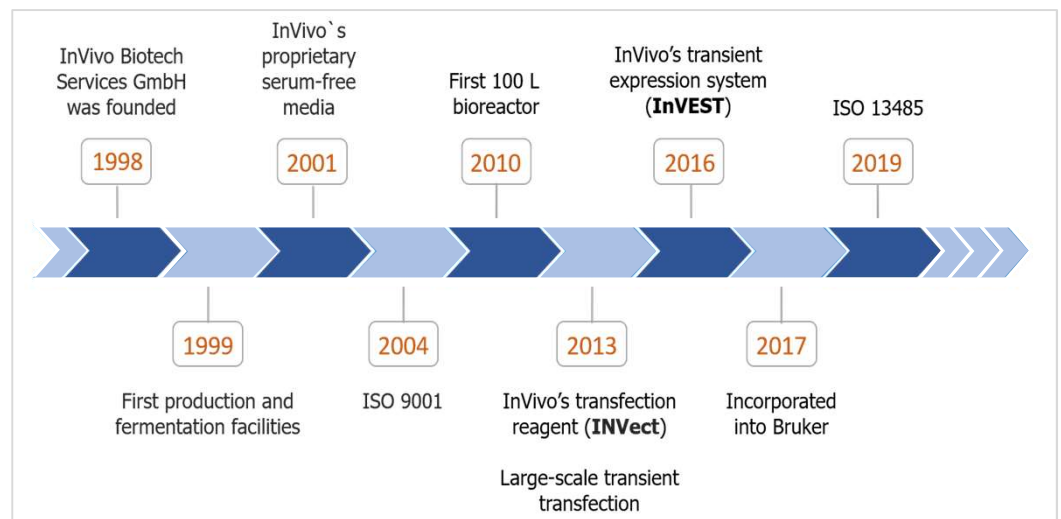
With satisfied customers worldwide, InVivo is a well-established and trusted partner for custom production and cost-effective outsourcing solutions.

InVivo has been ISO9001-certified since 2004 and has obtained the ISO13485 certification in 2019.

The company became part of the Bruker Corporation in 2017.



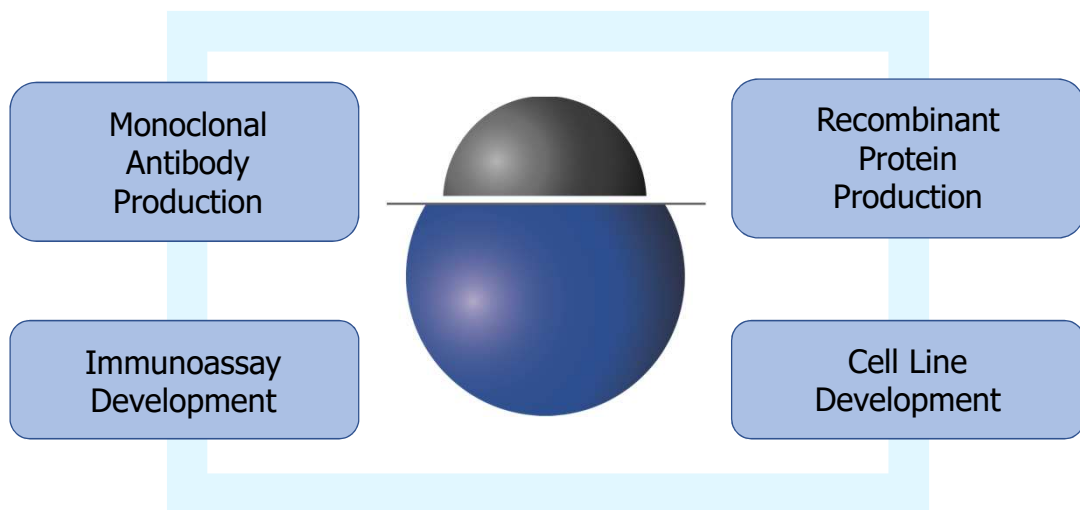
YEARS OF
EXPERTISE





*"Our goal is to provide **individualized solutions**, exactly tailored to the client's needs, and to create **lasting relationships** by providing **outstanding services** and **high quality products**".*

RELY ON US WITH YOUR OUTSOURCING NEEDS



- ✓ 20 years of experience with challenging projects
- ✓ Satisfied customers worldwide
- ✓ High-quality products
- ✓ Outstanding service

SERVICES

Monoclonal antibody production

- ✓ **3500+** successfully cultivated hybridoma lines
- ✓ Antibodies from all kinds of species (rat, mouse, human, etc.) and of various subclasses (IgGs, IgMs, IgAs)
- ✓ ***In vitro* production** exclusively under **serum-free** conditions
- ✓ Proprietary medium for **cost-efficient** production processes
- ✓ For research and preclinical use, human *in vitro* diagnostic, veterinary diagnostics or food and feed safety
- ✓ Antibody-on-demand service



Quality guaranteed:

- Highest purity
- Aggregate-free
- Endotoxin-free
- Batch-to-batch uniformity



Scale: 10 mg to 500 mg

Extras: Fixed unit price per mg mAB **after** pilot production
Antibody-on-demand service
Lyophilization and aliquoting

WELCOME OFFER – for every new hybridoma cell line:

- ✓ Pilot production, including adaption to InVivo`s proprietary medium
- ✓ Guaranteed yield: 10 mg mAB
- ✓ Timeline: 8-10 weeks

€ 999,00

Recombinant protein production in prokaryotic expression systems (*E. coli*)



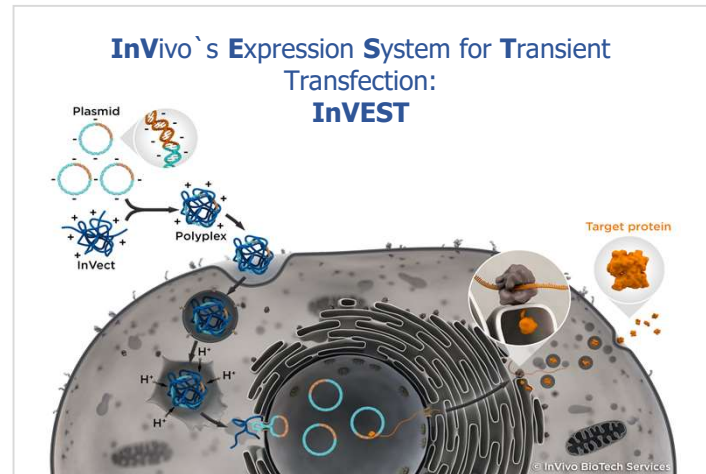
- ✓ **200+** completed projects
- ✓ Wide spectrum of cultivation vessels for easy upscaling and maximum flexibility: 2 L shaker to 50 L bioreactor
- ✓ 10 L bioreactors (OD 30-80) for high cell-density fermentation
- ✓ For production of short peptides and proteins without posttranslational modifications
- ✓ Target discovery, drug screening, research
- ✓ Antigen development and expression

Recombinant protein production – HEK and CHO

Within years of research and development, InVivo established an optimized system for transient gene expression in mammalian cells, **InVEST**:

- Optimized host cell line
- Customized cell culture media
- Cost effective large-scale plasmid preparation
- Sophisticated vector design
- Novel polycationic transfection reagent

Using InVEST, an **80-fold** production increase in comparison to a commercially available systems can be achieved.



- ✓ **700+** successfully completed projects
- ✓ **Large-scale** transient gene expression in mammalian cells for the fast production of recombinant antibodies and proteins **within weeks**

Quality guaranteed:

- Highest purity
- Aggregate-free
- Endotoxin-free
- Batch-to-batch uniformity



Scale: up to 2 g

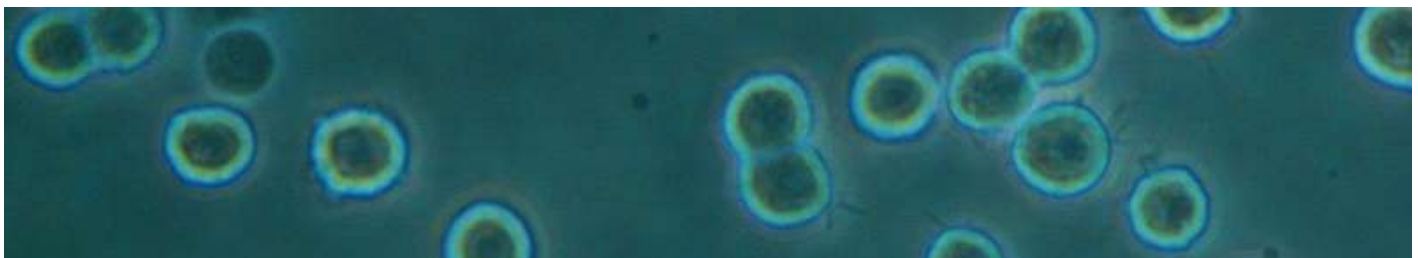
Extras: Antibody subclass switching and introduction of protein mutations

WELCOME OFFER:

- ✓ Feasibility study for transient expression of recombinant antibodies in HEK cells*
- ✓ Guaranteed yield: 40 mg recombinant AB
- ✓ Timeline: ~6 weeks (*w/o cDNA synthesis*)
- ✓ *Optional:* cDNA design, synthesis and cloning into expression vector pINV
(for cDNA-synthesis additional fees apply; price on request)

€ 4000,00

*Special offer for transient expression in CHO cells is available upon request



SERVICES

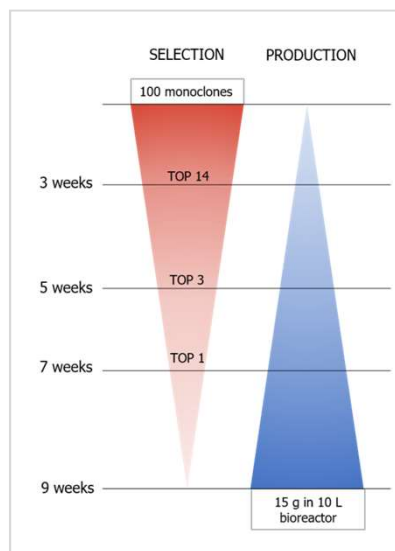


Advantages of InVivo's cDNA design and synthesis services

- ✓ Optimization of codon usage for highest efficiency
- ✓ Intact and ideal Kozak consensus sequence for successful ribosome assembly
- ✓ cDNA features
 - Signal peptides for efficient protein secretion
 - Tag, e.g. for protein purification (*optional*)
 - Restriction sites for cloning into InVivo's proprietary expression vector **pINV**
- ✓ Guarantees efficient protein expression and high product titers
- ✓ Time- and cost-efficient

Stable cell line development - CHO

- ✓ Shortened timeline through effective screening approaches and optimized high-yield antibody production
- ✓ **Stable CHO cell lines** in only **6 months**
- ✓ Cost-efficient production through implemented equipment and well-defined processes
- ✓ Maximum yield of up to **15 g** antibody from a 10 L bioreactor run
- ✓ Immediate project start, no waiting times for production slots
- ✓ Non-GMP, for research and preclinical studies



Maximized antibody yield through an optimized tool set

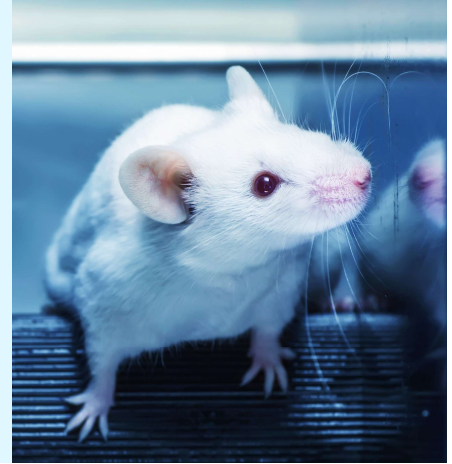
InVivo reduces the labor-intensive screening work, economizes production processes and optimizes selection, while simultaneously enhancing the yield of high-producing monoclonal antibodies:

- Optimized CHO suspension cell line
- Proprietary expression vector systems
- High-performance chemically-defined, animal-component-free medium
- Sophisticated high-cell density fed-batch fermentation process

SERVICES AND QUALITY

Stable Cell Line Development - Hybridoma

- ✓ **500+** successfully completed projects
- ✓ Custom development of **mouse hybridoma lines**
- ✓ **High-yield** production of monoclonal antibodies against proteins, peptides and haptens of interest
(antigen can be produced at InVivo via bacterial expression in E. coli or transient expression in HEK/ CHO cells)
- ✓ No waiting times, immediate project start
- ✓ Fast turnaround times
- ✓ Advanced in-house protocols and processes for cost-efficient production



Immunoassay Development

- ✓ Development and production of custom immunoassays
- ✓ Strong partnership with German Biotech companies and long-term collaboration with universities and hospitals (e.g. Charité Berlin) as well as IVD companies and startups
- ✓ Proprietary ELISA products, e.g. Selenotest®

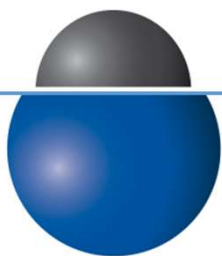
WE VALUE QUALITY



We are dedicated to serving you the best quality products

- ✓ Inward inspection of goods for sterility and putative mycoplasma contamination
- ✓ In-process controls for cell vitality and productivity, plus metabolite screening
- ✓ Product control:
 - Capillary Gel Electrophoreses (CGE) or SDS-PAGE
 - Test for endotoxins
 - Analytical Size Exclusion Chromatography (SEC)
- ✓ Endotoxin-free production for preclinical applications





InVivo BioTech Services

RELY ON US WITH YOUR OUTSOURCING NEEDS

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