



Single-cell insights into B cell function

APPLICATIONS:

Integrated B2B / CDMO Services

Expert CRO Collaboration: Outsourcing partner

Reliable antibody production:
Expertise in recombinant antibody
manufacturing with bioreactors
ranging from 2L to 100L

INFORMATION:

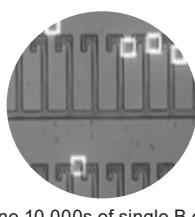
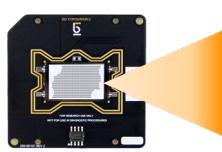
- InVivo BioTech Services GmbH
is certified according to
 - ISO 9001:2015
 - ISO 13485:2016

Engineering Tomorrow's Biology

At InVivo BioTech Services, a Bruker company at the forefront of scientific innovation, our team is pushing the boundaries of antibody development using a powerful tool called the **Bruker Beacon® Optofluidic** technology. This cutting-edge system allows scientists to study individual antibody secreting cells—specifically B cells—with incredible **sensitivity and accuracy**, leading to **faster and more effective** discovery of potent antibodies. Traditionally, discovering antibodies has been a slow and complex process. At InVivo, the latest technology is used to screen thousands of B cells at once, identifying the ones that produce the most promising antibodies.



Beacon system and OptoSelect™ chip Clone 10,000s of single B cells into NanoPen™ chambers OptoSelect™ chip





From Cell to Candidate — Faster Antibody Development Starts Here

Our InVivo laboratory team can detect which cells produce antibodies and how well those antibodies bind to their targets, **whether native or recombinant antigens – and ranks binding according to an Affinity score**. This high-throughput screening method we are using empowers scientists examine high amount of cells quickly, saving time and resources while maximizing the potential for success. At InVivo, we specialize in antibody **discovery and development**: Our technology enabling rapid, high-throughput screening of single B cells and delivers a smart workflow for optimal clone selection to get high-affinity recombinant antibodies tailored to your target.

You choose the path—whether it's cutting-edge single-cell screening with the Bruker Beacon® platform or the proven reliability of conventional hybridoma technology.



High-quality antibody production

Our state-of-the-art facilities in Berlin/Brandenburg, Germany, enable the production of up to one kilogram of **antibodies**, derived from either Beacon-selected cell lines or traditional hybridoma sources.

Equipped with >15 bioreactors, we ensure scalable, high-quality output to meet diverse scientific and industrial needs from small to large scales.

Our team is equipped to tailor the antibody development process to your specific needs, ensuring flexibility, precision, and performance at every stage.

Technology Comparison: Traditional vs. Beacon Platform at InVivo BioTech Services

Feature	Hybridoma Technology	Phage Display	Bruker Beacon Optofluidic
Single-Cell Resolution	No	No	Yes
Library Diversity	Limited to immunized animals	Synthetic or semi-synthetic	Natural B cell repertoire, cross-species compatible
Discovery Speed	Slow (weeks to months)	Moderate (weeks)	Fast (days to weeks)
Throughput	Low to moderate	High	Very high (10,000+ cells per run)
Ethical Considerations	Requires animal use	Reduced animal use	Minimal animal use; compatible with human cells
Functional Assay	Post-selection only	Limited	Real-time, on-chip

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