

Our Technology for Your Innovations

Aptamers – Smart Binding Molecules

Our aptamer technology provides a fast, robust, and scalable way to generate high-affinity, target-specific binders. Powered by our proprietary in-house SELEX platform, we generate tailor-made aptamers with exceptional consistency, eliminating the variability of biological expression systems. This significantly shortens development timelines and supports a broad spectrum of targets, including small molecules, proteins and whole cells. Comparable to antibodies, our aptamers achieve up to picomolar affinities, while offering superior thermal stability, excellent batch-to-batch reproducibility through precise chemical synthesis, and flexible chemical modification. A streamlined in vitro workflow integrating automated selection, sequence analysis and characterization ensures efficient optimization and industrial-grade quality.

TRL-Level: 7-8
Open for R&D Collaboration

Industry



Biotech



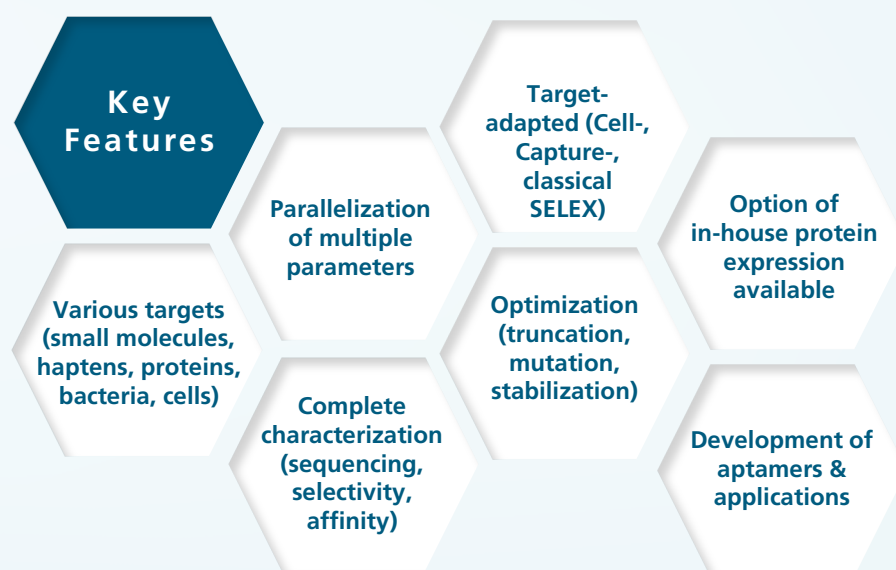
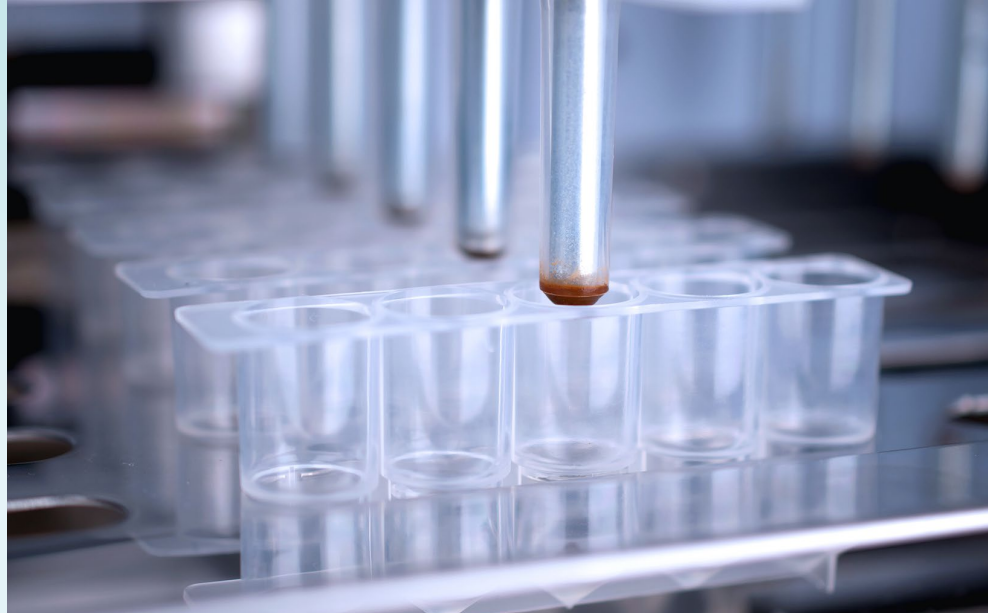
Diagnostics



Pharmaceuticals



Food & Water



Applications

- Development of bio-sensors and bio-assays with enzymatic, luminescent, electrochemical or mass-sensitive signal readout
- As pharmacological inhibitors through blocking specific disease-relevant proteins or receptors
- Affinity purification of His-tag or specific proteins from lysates

Customer Benefits

- Access to proprietary platforms and proven workflows
- End-to-end service of highly specific and affine aptamers
- Extensive expertise in the development of various aptamer applications from a single source
- Provision of detailed protocols and comprehensive, continuous support throughout the entire project

Further information

Sabrowski et al. 2022, *Sci Rep*, 12(1): 7936
Dreymann et al. 2022, *Cancers*, 14(21): 5222
Mayer & Menger, 2023, *Nucleic Acid Aptamers 2 ed.*, pp. V-VI, Humana

<https://www.izi-bb.fraunhofer.de/aptamere>

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