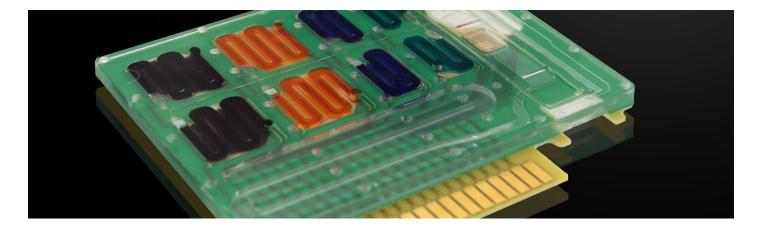
# FULLY-INTEGRATED MICROFLUIDIC CARTRIDGES FOR IN-VITRO DIAGNOSTICS



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Photo acknowledgments: Fraunhofer ENAS All information contained in this datasheet is preliminary and subject to change. Furthermore, the described system is not a commercial product.

# Microfluidic Cartridge

- Fully integrated, self-contained cartridges for in-vitro diagnostics
- Suitable for running immuno assays
- Integrated liquid reservoirs for storing reagents and sample
- Contains low-cost pumps for integrated fluid handling
- Completely polymer-based
- No additional fluidic interface required
- Integrated heating (e.g. for hybridization) possible

### Micropumps

- Fully integrated, no additional packaging
- Based on an electrochemical process
- Very low complexity
- Single-shot pumps for disposable applications
- Typical flow rates in the range of 0.1 to 1μl/s

### Services

- Miniaturization of bio-assays based on the described technology platform (feasibility studies)
- Customized development of fullyintegrated microfluidic systems optimized for a specific assay and/or application
- Interfacing and integration of various kinds of biosensors
- Complete development chain from prototyping to production scale-up
- Development and customization of required control electronics and software





