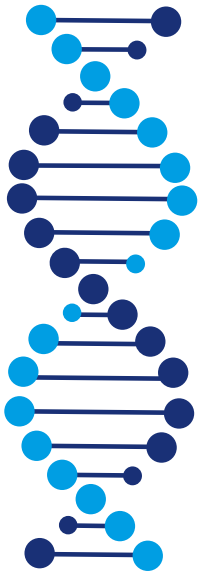
SIBA® licensing and partnering opportunities



Aidian is seeking licensing and partnering opportunities for the exclusive, IPR protected, isothermal strand invasion based amplification (SIBA) technology. The versatile technology lends itself for broad range of markets from large volume laboratory settings, to point of care (POC) as well as for demanding on the spot field testing, and allows the development of easy to use products. The technology is ideal for pathogen detection in *in vitro* diagnostic (IVD) solutions but also in veterinary, food, feed, or water testing. Well established SIBA with its excellent performance[1-4] answers to increasing demands on faster and more cost effective testing methods. Aidian is interested in licensing opportunities, but also collaboration possibilities around test development, reagents, instrumentation and manufacturing.

High sensitivity

- Detection as low as 10 copies of viral RNA[2,3]

High specificity

- Can detect even 1-2 bp differences in sequences [1]
- Reliable SYBR green detection is an option
- Melting curve analysis possible
- Resistant to non-specific amplification

Speed

- Short time to result – even <10 min[2,3]
- Minimum sample prep required – short hands on time

Robustness

- High protein and salt tolerance
- Dry chemistry for improved reagent stability
- Real-time continuous reaction and detection
- Wide reaction temperature range – less stringent instrumentation specifications

Multiplexability

- Multiple probe and detection chemistries

Rapid assay development

- Ideal for outbreak situations

Small footprint

- Low demands on instrumentation or even intrument free

Commercial SIBA products and applications

CE marked IVD tests with a small stand alone instrument launched for the European market:

- *C. difficile*
- *Campylobacter*
- SARS-CoV-2

Fast assays developed to detect microbes causing infectious diseases:

- Influenza A & B, RSV, rhinovirus and Zika virus
- *Salmonella, Listeria, Legionella, C. trachomatis* and *N. gonorrhoeae*

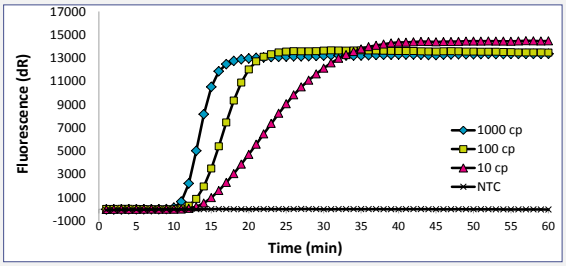
Other applications:

- Differentiation of Robusta coffee from Arabica in roasted coffee beans
- Detection of GMO maize
- *Legionella* detection in environmental and water samples

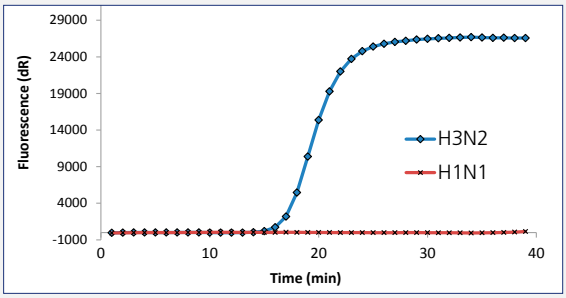
Superior speed and sensitivity of RT-SIBA influenza assay compared to CDC RT-PCR influenza assay; capability of subtyping Influenza strains due to high specificity of SIBA[2]

Influenza	Number of positive reactions (time of positive result) NOTE: ramp time of RT-PCR reactions not included, which further increase the total time to results for RT-PCR		
		RT-SIBA	RT-PCR
Subtype	cp/reaction		
A (H1N1)	1000	12/12 (12 min)	12/12 (54 min)
	100	12/12 (15 min)	0/12
	10	12/12 (20 min)	0/12
A (H3N2)	1000	12/12 (11 min)	12/12 (50 min)
	100	12/12 (14 min)	12/12 (52 min)
	10	12/12 (16 min)	0/12
A (H5N1)	1000	12/12 (10 min)	12/12 (51 min)
	100	12/12 (12 min)	12/12 (53 min)
	10	12/12 (15 min)	0/12
B	1000	12/12 (10 min)	12/12 (51 min)
	100	12/12 (12 min)	12/12 (53 min)
	10	11/12 (13 min)	11/12 (56 min)

Influenza B



Subtyping of Influenza A strains



References

1. Hoser MJ, Mansukoski HK, Morrical SW, Eboigbodin KE (2014) Strand Invasion Based Amplification (SIBA®): A Novel Isothermal DNA Amplification Technology Demonstrating High Specificity and Sensitivity for a Single Molecule of Target Analyte. PLoS ONE 9(11): e112656. doi:10.1371/journal.pone.0112656A
2. Eboigbodin K, Filén S, Ojalehto T, Brummer M, Elf S, Pousi K & Hoser M. Reverse transcription strand invasion based amplification (RT-SIBA): a method for rapid detection of influenza A and B Applied Microbiology and Biotechnology, 2016, April 11. Doi: 10.1007/s00253-016-7491-y.
3. Eboigbodin KE, Moilanen K, Elf S & Hoser M (2017). Rapid and sensitive real-time assay for the detection of respiratory syncytial virus using RT-SIBA®. BMC Infectious Diseases, 17, 134. Doi: 10.1186/s12879-017-2227-x.
4. Rosenstierne, MW, Joshi S, Danielsen E, et al. (2021). SARS-CoV-2 Detection using reverse transcription strand invasion based amplification and a portable compact size instrument. Scientific Reports. Doi: 10.21203/rs.3.rs-654239/v1 (Under review)

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More information on aidian.eu → About us → Partnering and licensing

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