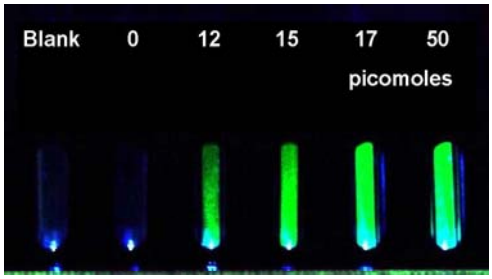
Forensic Diagnostics

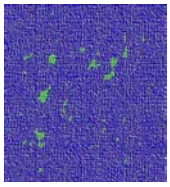
one pot diagnostics * ultrasensitive detection multiplexed bioassays * *in vivo* diagnostics drug delivery * peptides * liposomes

Advanced Biomedical (ABL) specializes in sensitive "one pot" diagnostics, particularly suited to low skill tests and simple automated assays for complex samples, including for bio-specific markers and low molecular weight analytes such as drugs of abuse, hormones and explosives.

Unique peptides are simply modified to detect a wide range of analytes and rapidly generate quantitative amplified signals for any reader including the naked eye. The peptide reagents are homogeneous and fully integrated into small, nanometer-size particles suitable for simple field use, aerosol delivery and penetration into complex materials to detect and reveal one or more trace analytes.



- Picogram / nanogram eye visible macroscopic detection.
- Microscopic detection 100 to 1000 x more sensitive.
- Multi-analyte panels & multiplexed assays
- (antibody, receptor, enzyme)
- Stable, low background, safe reagents
- Suitable for detection on or within solid materials to reveal trace analytes



ABL's unique technical position is provided by peptides engineered to trigger signal development in small nanometer-sized assemblies made specific to particular analytes by simple chemical modifications of the peptides. The analyte-sensitized peptide trigger is armed with a second sensitivity allowing it to be switched on or off, to provide a preformed assembly.

- Amplification allows the naked eye to be as sensitive as lab readers. Battery-operated light sources (*eg* diode torches) can be used to reveal diagnostic signal.
- By changing the payload in the assembly, particular analyte-sensitised peptides can trigger development of different optical signals, allowing multiple analytes to be detected in the same sample.
- The small size and high stability of the sensing assembly allows penetration into complex samples to find trace analytes *in situ.*
- Use as microscopy reagents to screen or reveal small particles containing analytes at locally higher concentrations avoids non-detection resulting from extraction and dilution.
- Assemblies can retain signal and be recovered, the number triggered providing ultrasensitive detection below normal sensitivity when microscopically analyzed.

ABL Forensic Field Tests & Aerosol Delivered Diagnostics.

Reagent Supply, Detection Solutions and *Licenses Available.

Advanced Biomedical Ltd
Saddleworth Business Centre
Huddersfield Road, Delph
Oldham OL3 5DF UK
Tel: +44 (0) 1457 875798
Fax: +44 (0) 1457 871088

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info@advanced-biomedical.co.uk
www.advanced-biomedical.co.uk