

RAPID TEST (LATERAL FLOW) development service

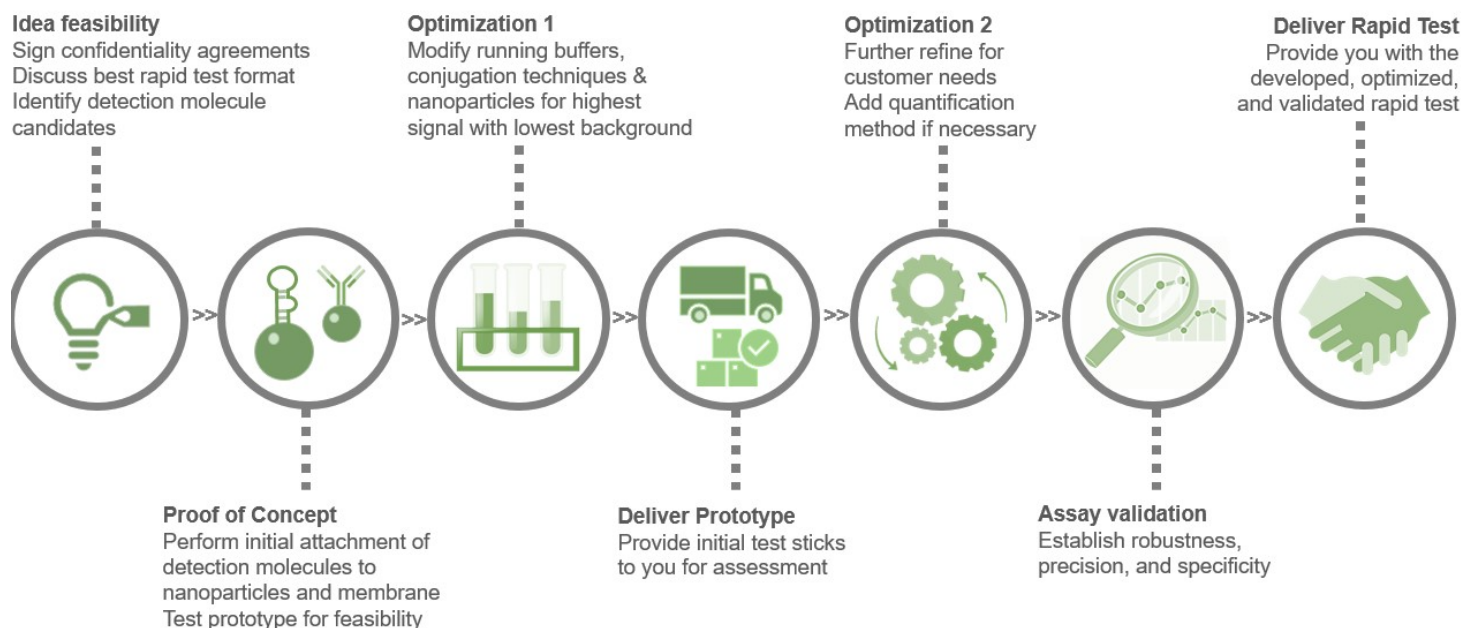
CytoGroup has over 15 years of experience in rapid test development. Combining our technical expertise with our high-quality Cytodiagnostics' nanoparticles, we can simplify your development process to help produce the sensitive assay you require for your unique application.

Well-versed in both standard antibody-based as well as cutting-edge aptamer/oligonucleotide-based assays, we offer services ranging from custom nanoparticle conjugation to whole lateral flow (LF) assay optimization.

APPLICATIONS

- Rapid water quality testing
- Disease marker screening
- Point of care detection
- Detection of proteins/antibodies during production
- PCR product detection
- Genetic material (DNA/RNA) screening
- Converting lab plate-based assays to facile field tests

DEVELOPMENT SERVICE WORKFLOW



TYPES	BENEFITS
Rapid test optimization: Antibody-based sandwich/direct/ competitive lateral flow	<ul style="list-style-type: none"> Our team can perform all optimization of passive vs. covalent conjugates of your antibodies to determine which method is most suitable for your assay. Buffers, membrane striping conditions etc. can be optimized to give you the best possible sensitivity with the lowest background. Qualitative yes/no, semi-quantitative and quantitative (with band intensity reader) final assay formats available Phase-based projects: <ul style="list-style-type: none"> An initial prototype will be generated to check viability of the antibodies in an LF assay format. Further optimization/assistance towards commercialization available in subsequent phases
Rapid test optimization: Aptamer/ oligonucleotide-based lateral flow	<ul style="list-style-type: none"> Same services available as for antibody-based lateral flow, but with our unique aptamer knowledge and techniques Services also available combining antibodies and aptamers as detection molecules
Custom passive antibody/protein nanoparticle conjugation	<ul style="list-style-type: none"> Allow our team of experts to perform laborious pH and protein loading experiments for you. We can determine which conditions yield the most stable and LF functional conjugate
Custom covalent antibody/protein nanoparticle conjugation	<ul style="list-style-type: none"> Our team will determine which linking chemistry best suits your antibody/protein. We can assess the conjugate for LF functionality and sensitivity
Aptamer/ oligonucleotide nanoparticle conjugation	<ul style="list-style-type: none"> Our team can perform laborious salt aging methods for you along with modern OligoREADY, AptamerREADY and covalent methods. We can create multiple variations to determine which best suits your end usage

FINAL RAPID TEST FORMATS

- Antibody-based lateral flow
- Aptamer/oligonucleotide-based lateral flow
- Aptamer/Antibody Hybrid lateral flow
- Qualitative, semi-quantitative or fully quantitative (with band intensity reader)
- Partial dipstick for conjugate testing, full dipstick with ready conjugate pad, or cartridge format
- Bulk manufacturing

RELATED PRODUCTS

- Rapid Test (Vertical Flow) Development Services
- Gold/silver/urchin nanoparticles
- Conjugate quality control dipsticks
- Universal lateral flow assay kit
- Pre-made conjugate pads
- Pre-made full lateral flow sticks
- OligoREADY, AptamerREADY, NHS, Maleimide and Click-Chemistry Activated Gold/Silver/Urchin Nanoparticles
- Nanoparticle conjugates