



# D2Dx™

A Single-Step Immunoassay Technology

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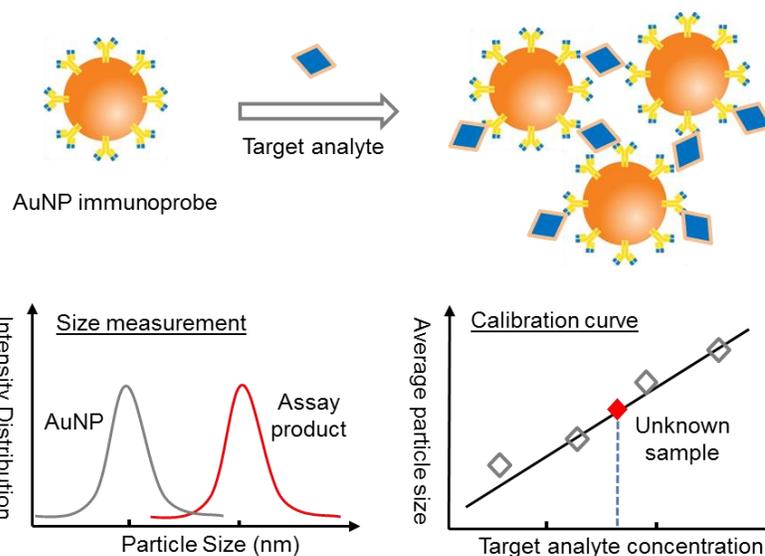
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# D2Dx™ TECHNOLOGY

**D2Dx™** (from diameter to diagnostics) detects target analytes by measuring the average diameter change of gold nanoparticle (AuNP) probes upon binding with the target analytes. To conduct the assay, gold nanoparticles conjugated to specific antibodies or antigens (the AuNP probes) are simply mixed with the sample solutions. Following an incubation period of 5-30 min, the binding of the target analytes with the gold nanoparticle probes can lead to nanoparticle cluster or aggregate formation. The average particle size increase of the assay solution is measured using D2Dx-R assay reader and is correlated to the target analyte concentration.

- Single-step immunoassay
- Label-free
- Washing-free
- Results in 5-30 min
- Easy-to-use
- Minimum labor



## Selected Literature

1. Lai YH, Koo S, Oh SW, Driskell EA, Driskell JD. Rapid screening of antibody-antigen binding using dynamic light scattering (DLS) and gold nanoparticles. *Anal Method* 2015, 7, 7249-7255.
2. Driskell JD, Jones CA, Tompkins SM, Tripp RA. One-step assay for detecting influenza virus using dynamic light scattering and gold nanoparticles. *Analyst* 2011, 136, 3083-3090.
3. Liu X, Dai Q, Austin L, Coutts J, Knowles G, Zou J, Chen H, Huo Q. A One-step homogeneous immunoassay for cancer biomarker detection using gold nanoparticle probes coupled with dynamic light scattering. *J. Am. Chem. Soc.* 2008, 130, 2780-2782.
4. Pierre-Pierre, N.; Huo, Q. Dynamic light scattering coupled with gold nanoparticles as a powerful sensing technique for chemical and biological target detection. Book chapter for ACS Symposium Series: Recent Progress in Surface and Colloids Chemistry with Biological Applications, 2015.

# GOLD IMMUNOPROBES

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CK100 is a conjugation kit for preparing gold nanoparticle-antibody (IgG or IgY type) or gold nanoparticle-antigen protein conjugates. The conjugation comprises a simple two-step centrifugation process. Total time of preparation varies approximately from 20 min to 1 hour. The kit can be used to conjugate either antibodies (monoclonal or polyclonal) or antigen proteins to the gold nanoparticles.

The kit contains gold nanoparticles and conjugation reagents to prepare gold nanoparticle probes that are sufficient for conducting approximately 72 tests using D2Dx™ immunoassay.

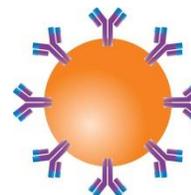
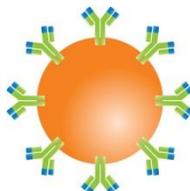
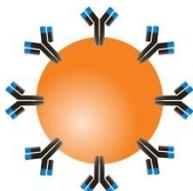
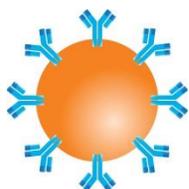
## PRODUCT CATALOG

### CK100

- Each kit contains 1.2 mL concentrated gold nanoparticles at approximately  $5.60 \times 10^{10}$  particles/mL (specific concentrations may vary slightly from batch to batch of products. The variation does not have significant effect on the performance of the immunoassay).
- Particle core diameter: ~100 nm
- The kit can be used to prepare both gold-antibody or gold-antigen protein conjugates.
- Each kit will allow preparation of gold conjugate solution that is sufficient for conducting approximately 72 immunoassay tests using D2Dx™ assay protocol.

### PRICE

1 kit (for 72 tests): \$300

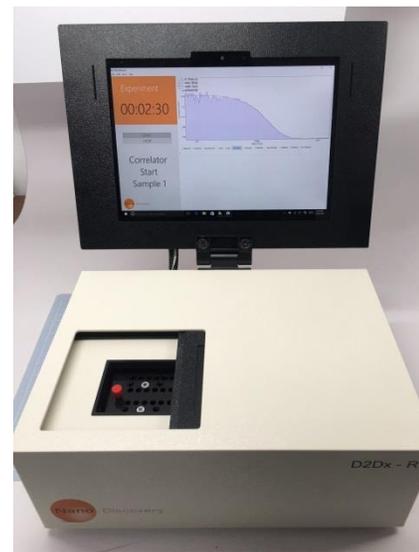
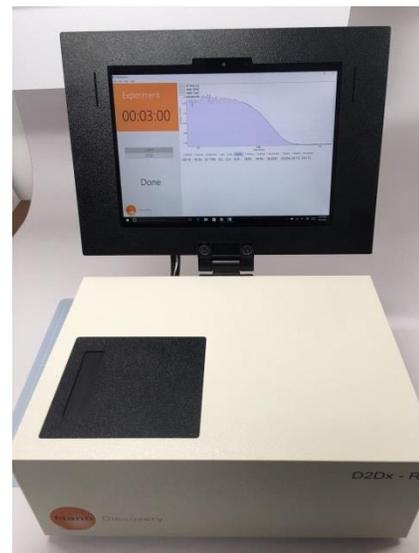
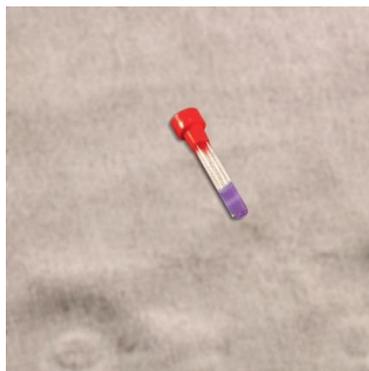


# D2Dx-R ASSAY READER

D2Dx-R is a compact device with a unique design to read the D2Dx™ assay results. It is extremely easy to use. A customer simply mixes the sample solution with the gold nanoparticle immunoprobe solution in a small glass tube. The glass tube is then placed in a built-in sample holder in D2Dx-R for incubation. After 5-30 min of incubation time, the average diameter of the assay particle solution is measured, and the particle size is correlated to the analyte concentration.

## SPECIFICATIONS

- Weight: 11.0 lb
- Dimension: 12.75"x9"x6"
- Laser wavelength: 635 nm
- Maximum laser power: 5 mW
- Assay temperature: ambient
- Analysis speed: 30s per sample
- Built-in Microsoft SurfacePro tablet computer with D2Dx-EZ software preinstalled



# HOW TO PLACE ORDER

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## PLACE ORDER IN NORTH AMERICA

To place an order within North America, please call or email us and one of our Sales Representatives would be happy to assist you. We accept Purchase Orders as well as Credit Cards (VISA and Mastercard).

## INTERNATIONAL ORDER

We accept payments only through bank wire transfer for international orders.

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