InDevR

Enabling Vaccines

CypherOne™
Hemagglutination Analyzer

Bringing vaccine analytics
into the 21st century

CypherOne Analyzer

Rapid analysis of hemagglutination assays

Eliminate Subjectivity

Purpose built analysis algorithm compatible with HA and HAI assays. Eliminates user-to-user and site-to-site variability.

Traceable Record

High resolution plate image and results are digitally stored in a SQL database with domain access and audit log traceability.

Workflow Compatibility

Customize the plate layout for your SOPs and utilize the batch import tools to help minimize user and data entry errors.

Standardization

Compare results with other study partners across the globe while ensuring all results are generated using a standardized analysis method.

Fast Results

Endpoint titration and digital image in less than 40 seconds. Analyze a single plate or batch hundreds in a row.

Powerful Software

Powerful software streamlines analysis and is 21 CFR Part 11 compatible to ensure high levels of data integrity.

Easy to Learn

Install the system and start scanning plates in less than an hour.

Evaluate in Your Lab

Schedule your free evaluation of the CypherOne System in your lab today.

CypherOne Performance

Fast, Accurate Interpretation

How It Works

Prepare your HA or HAI plate using your SOP and regular workflow. The CypherOne will capture an image of the plate and use an automated algorithm to determine the best endpoint titer value of each dilution series. Results are automatically displayed with the high resolution image and saved in a database which may be reviewed or exported.

Workflow

Insert Plate › Scan › Call Result › **Auto Save File**
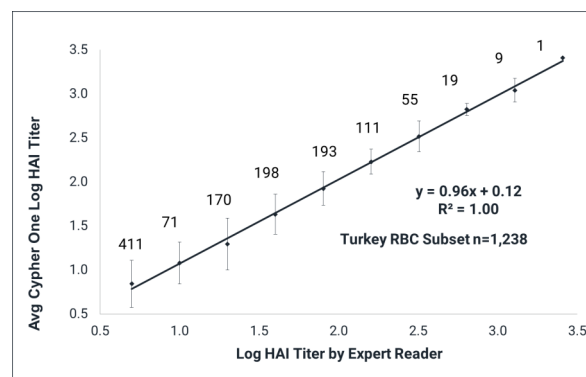
~ 40 seconds

Demonstrated Performance

- 2,200 human serum samples analyzed by HAI against 12 different antigens for both H1/B and H3 strains.

- 0.5% Turkey RBCs, both H1 and B influenza strains. Human interpretation utilized tilt method.

- 0.75% Guinea Pig RBCs of H3 influenza strains. Human interpretation did not require tilt.

- A direct comparison was done between the titer call of CypherOne vs. an experienced human reader.
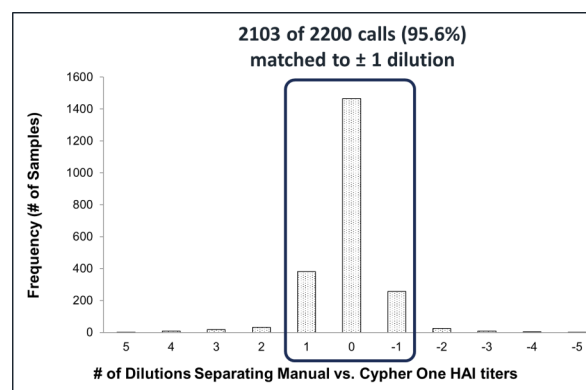
Results

- 95.6% of the titer calls made by CypherOne were accurate to within +/- 1 dilution of the manual titer call.

- A linear regression slope of 0.96 and a Pearson's correlation of 1 indicate a strong correlation between interpretation methods.

2103 of 2200 calls (95.6%) matched to ± 1 dilution

Frequency (# of Samples) vs. # of Dilutions Separating Manual vs. Cypher One HAI titers

$y = 0.96x + 0.12$
$R^2 = 1.00$
Turkey RBC Subset n=1,238

Avg Cypher One Log HAI Titer vs. Log HAI Titer by Expert Reader

Wilson G, Ye Z, Xie H, Vahl S, Dawson E, et al. (2017) Automated interpretation of influenza hemagglutination inhibition (HAI) assays: Is plate tilting necessary?. PLOS ONE 12(6): e0179939.

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Learn more about CypherOne

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InDevR is a life science tools company developing analytical technologies for vaccine research. Enabling the safe, rapid and effective production of vaccines is our mission.