

# Comparing Cypher One and Manual Analysis of Hemagglutination Assays

Cypher One	Manual Analysis
<b>Digital, Traceable Record</b>	
✓	⊘
<i>The record generated by Cypher One includes a plate image linked to experimental conditions and results.</i>	
<b>Standardized &amp; Sensitive</b>	
✓	⊘
<i>Cypher One utilizes a high resolution image analyzed by a mathematical algorithm to determine titer values thereby avoiding the high degree of variability between technicians and laboratories performing manual analysis (A).</i>	
<b>Reliable &amp; Accurate</b>	
✓	⊘
<i>Cypher One produces results with excellent agreement (B) to expert analysis performed at government, academic and industry labs without the need to tilt plates.</i>	
<b>Consistent &amp; Reproducible</b>	
✓	⊘
<i>Cypher One delivers consistent results by conserving analysis parameters for a given set of experimental conditions.</i>	
<b>Expert Training and Interpretation Not Required</b>	
✓	⊘
<i>With Cypher One, expert analysts with years of interpretation experience are no longer required to analyze each plate at the end of incubation thereby freeing time for more important activities.</i>	

## References:

- A. Wood J, et al. "Comparison of influenza serological techniques by international collaborative study." *Vaccine*. (1994) 12:167-74.  
Wagner R, et al. "Enhancing the reproducibility of serological methods used to evaluate immunogenicity of pandemic H1N1 influenza vaccines – An effective EU regulatory approach." *Vaccine* (2012) 30(27):4113-22.
- B. InDevR. (2015) *Cypher One Application Note #5*. Boulder, CO.  
Rowlen K. (October 2015) "Automated Imaging and Standardized Interpretation of Hemagglutination Assays." Presentation.