

Neutralization Assay in <1 Day with No Cell Culture

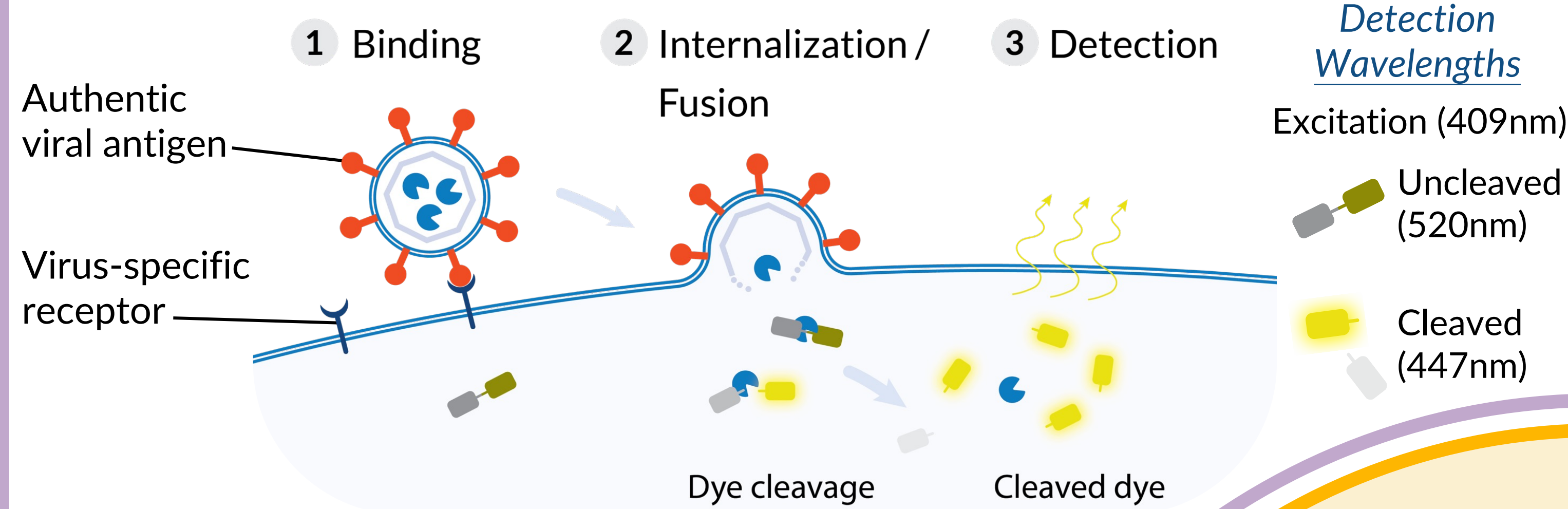
Viral particles enable multiple readouts for influenza vaccine research

Christina K. Go, Chidananda Sulli, Nicholas Molino, Valerie Fiers, Parul Ganjoo, Lexy Rodrigues, Vlada Kupriienko, Lewis J. Stafford, Jennifer Pfaff-Kilgore, Maya Cabot, Nathan Krump, Kyle Doolan, Benjamin Doranz

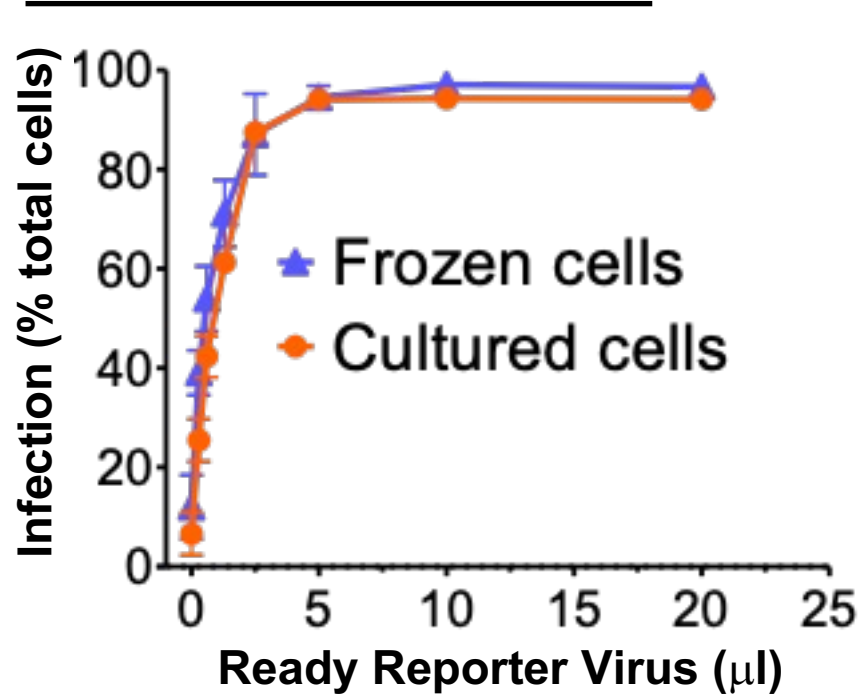
Integral Molecular, Philadelphia, PA

Ready Reporter Virus™ (RRV): Instantaneous Signal Upon Virus Fusion

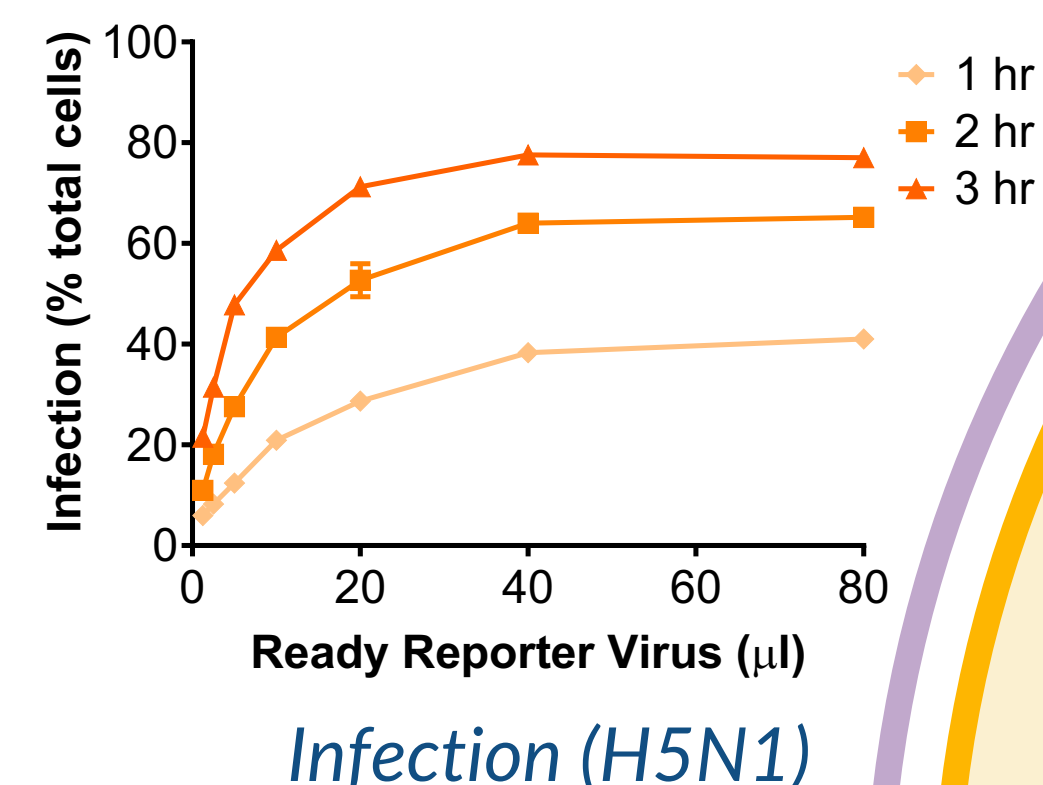
Enzymatic Reporter for Immediate Signal



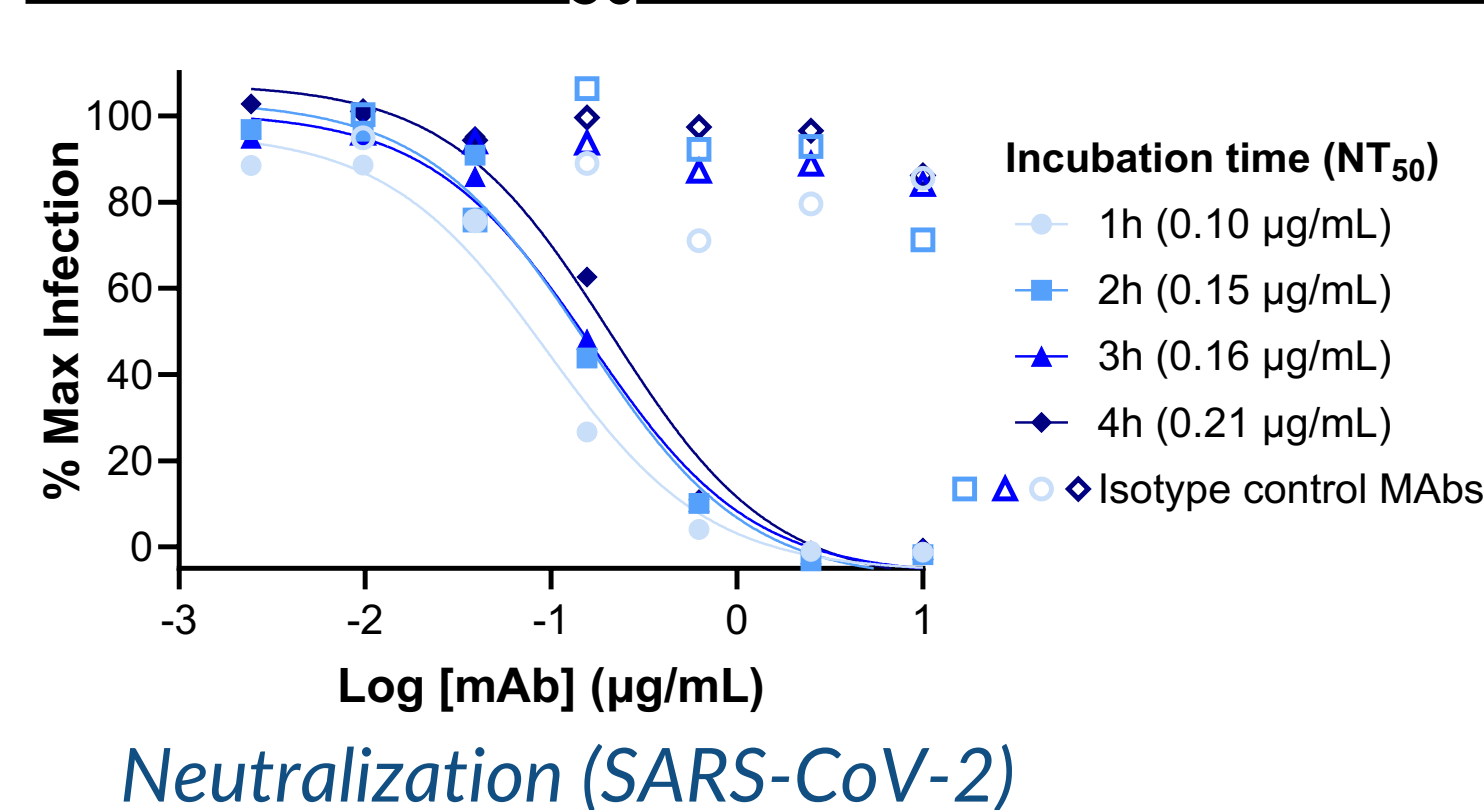
Equivalent Results with Pre-Frozen Cells



Rapid Results in Hours

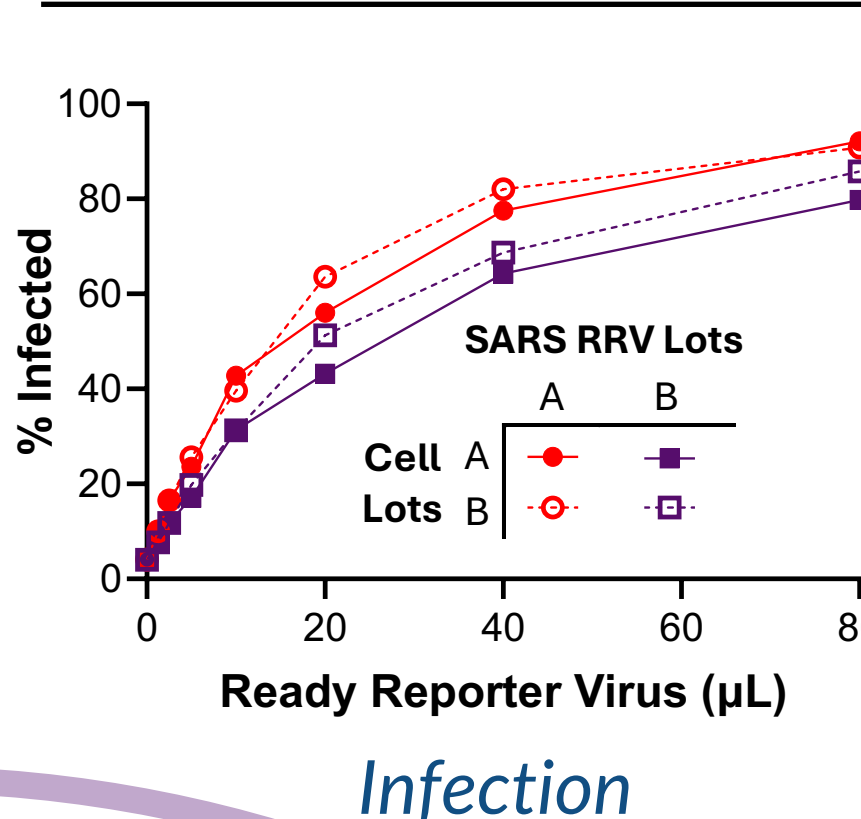


Consistent NT₅₀ Across Incubation Times

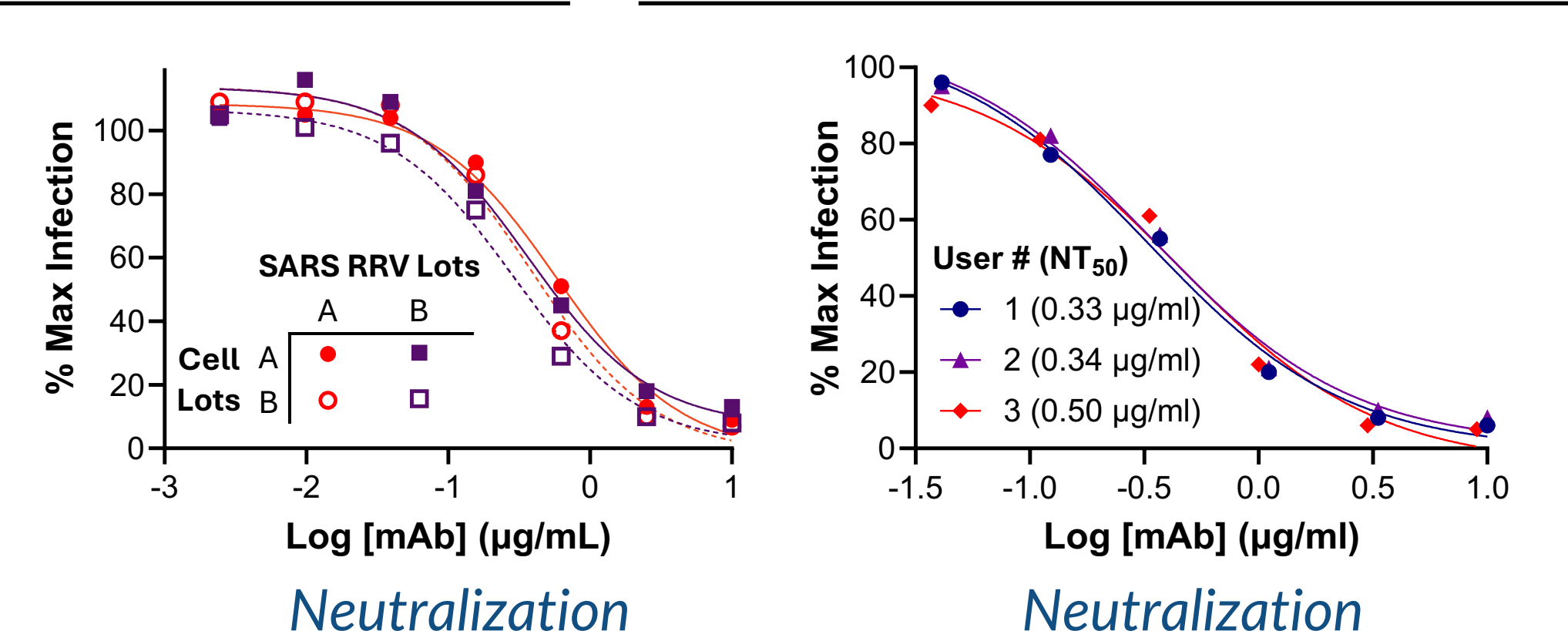


Reproducible Results: Across Lots, Operators, and Laboratories

Uniform Results Across Manufactured Lots

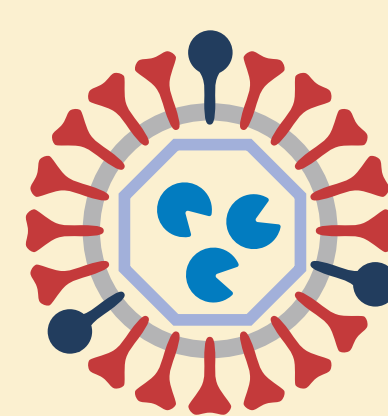


Consistent Results Across Users

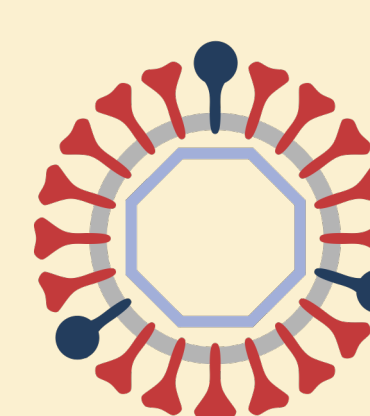


Results in Hours Not Days

RRVs & Influenza TiterSafe™ Particles
Complementary products for influenza research



Ready
Reporter
Virus™



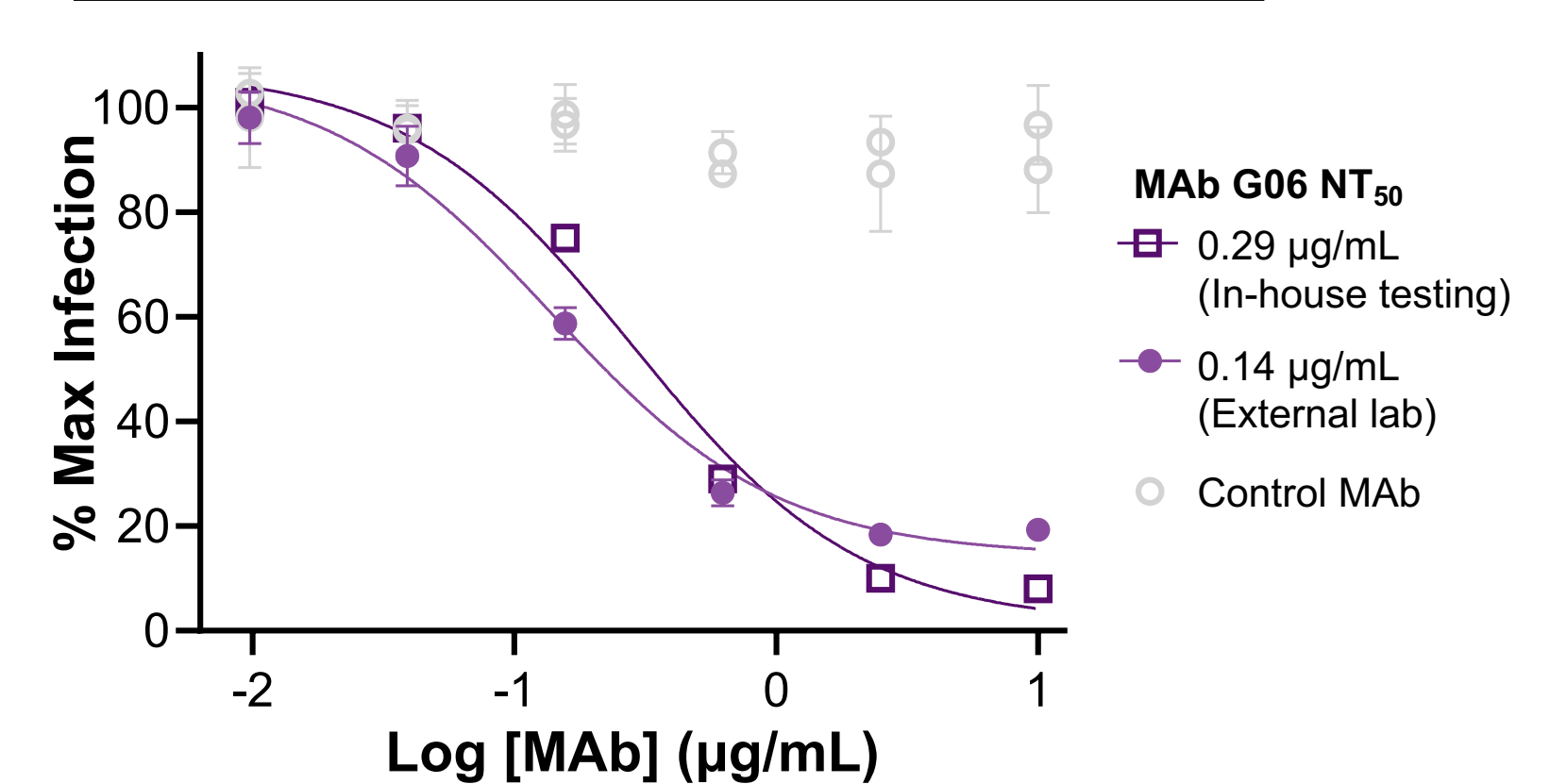
Influenza
TiterSafe™
Particles

Biologically Relevant Data
Antigenically authentic viral particles

Thaw and Use Kits
*Immediate testing with rapid,
automation friendly results*

BSL-2 Safe
*Non-replicative
pseudotypes*

Cross-Laboratory Reproducibility



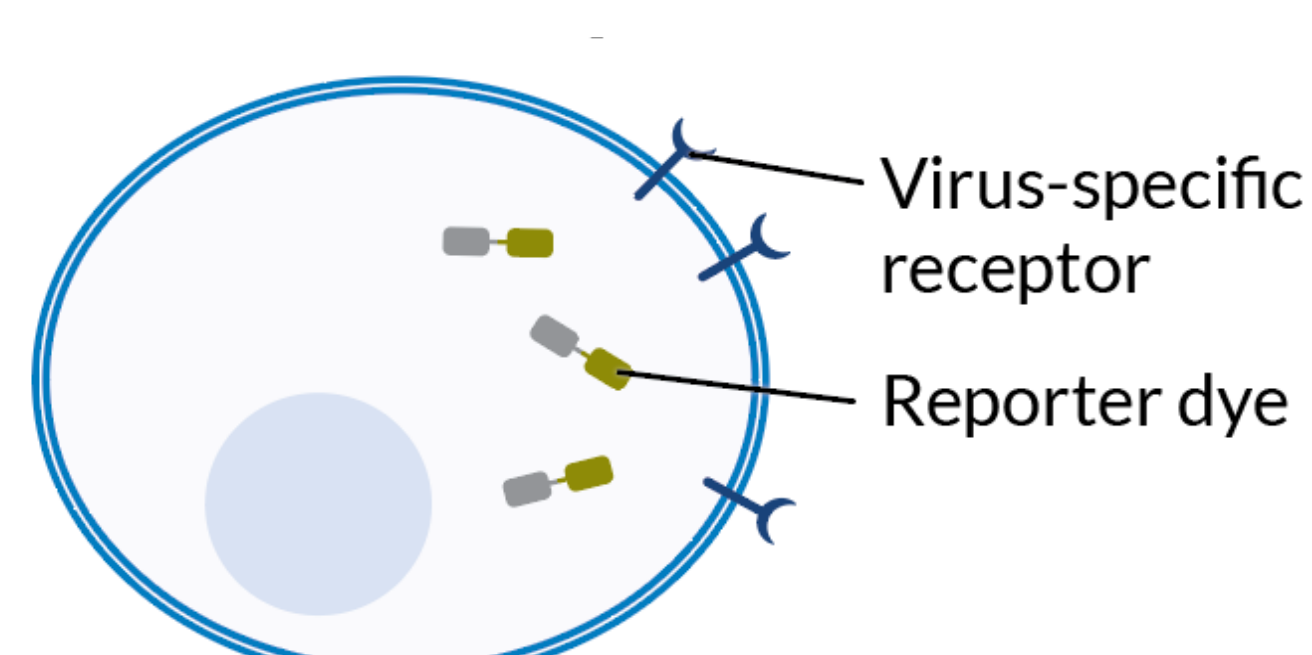
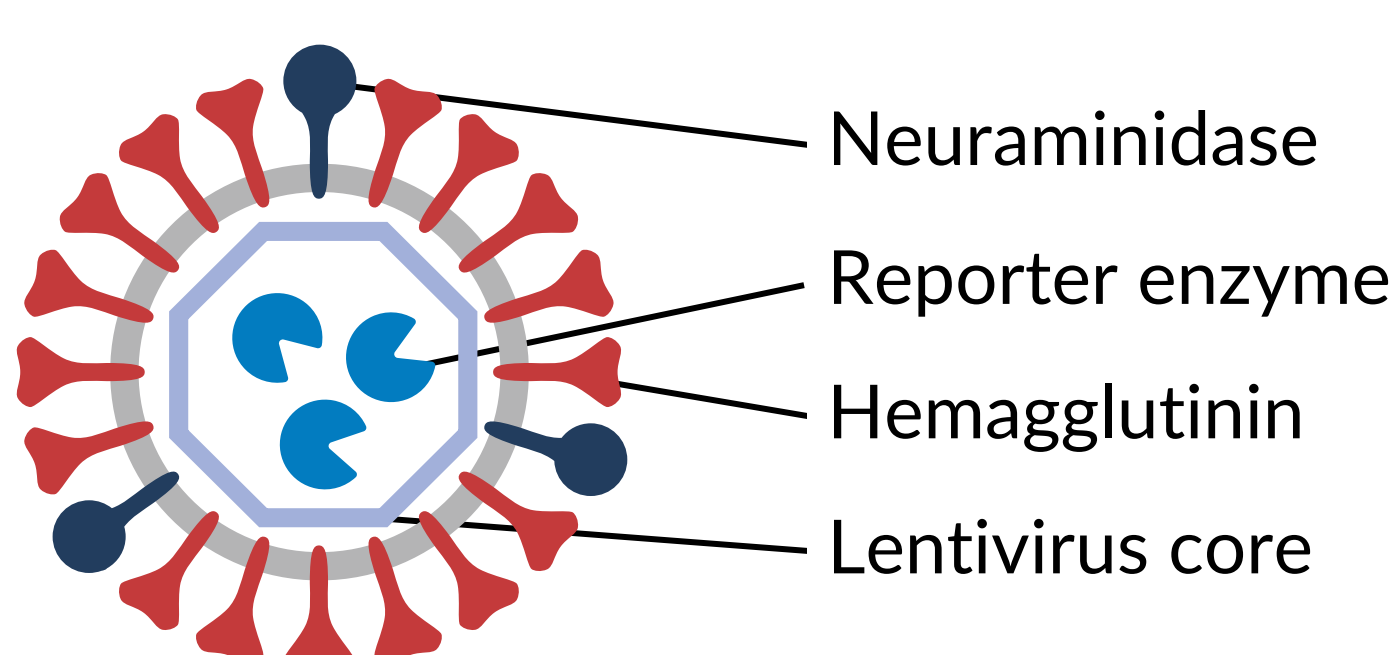
**RRV kits deliver comparable NT₅₀
results across productions lots,
users, and labs**

An Influenza Viral Particle Platform for Vaccine Research

**Ready Reporter Virus™ and TiterSafe™
Particles show consistent results with strain-
matched live virus in neutralization and HAI assays**

No Cell Culture Needed: Thaw, Mix, and Read

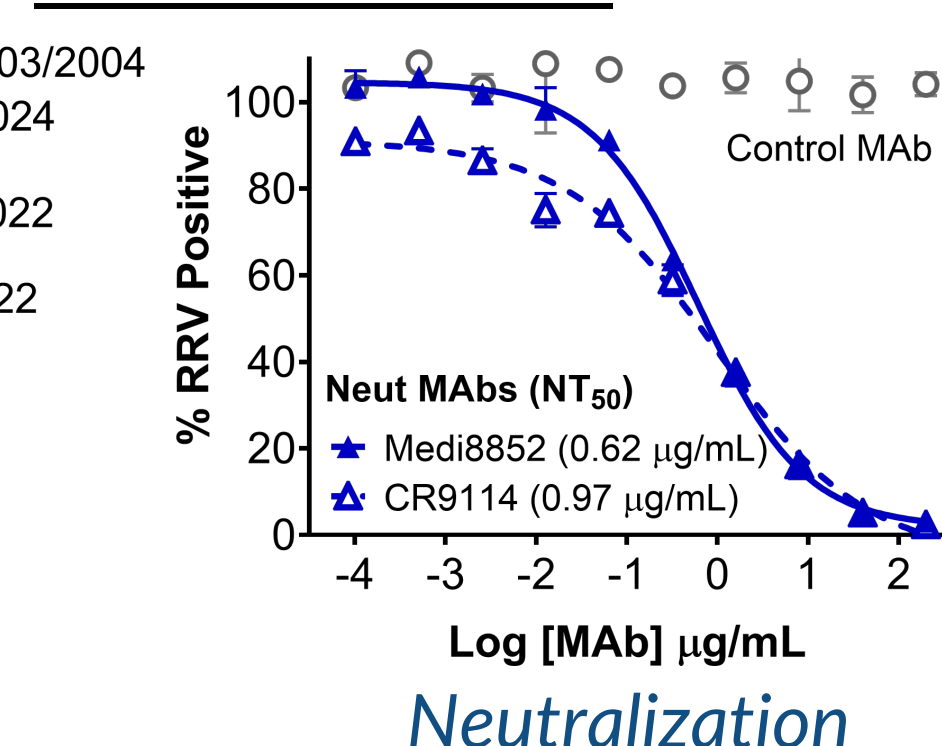
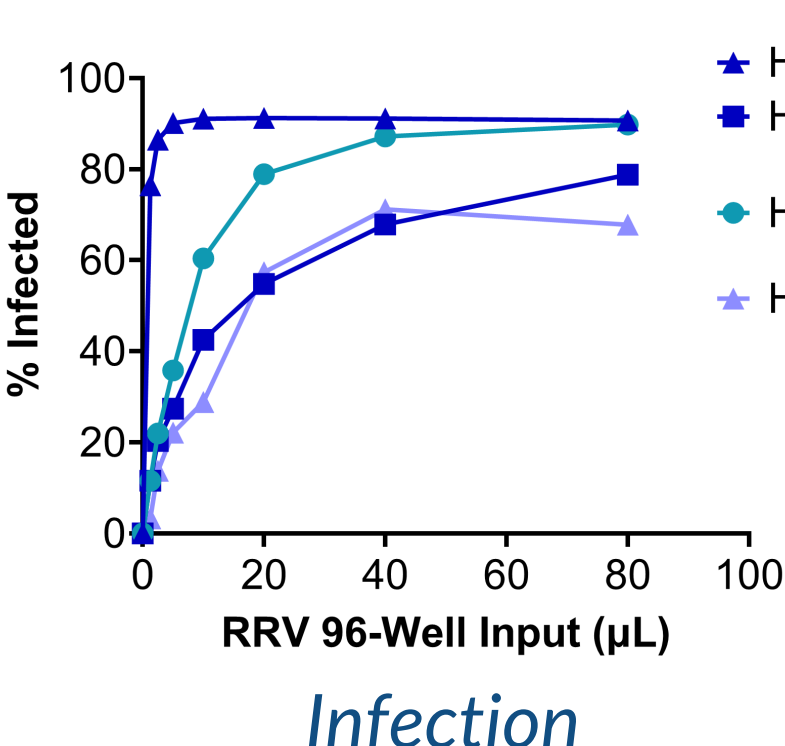
Authentic RRV Virus Particles + Live Ready Reporter Target Cells



**Rapid assay onboarding and training with streamlined
workflows ideal for automation and high throughput**

Adaptable RRVs: Plasmid-Defined Design Enables Rapid Response to Emerging Strains

Influenza RRVs



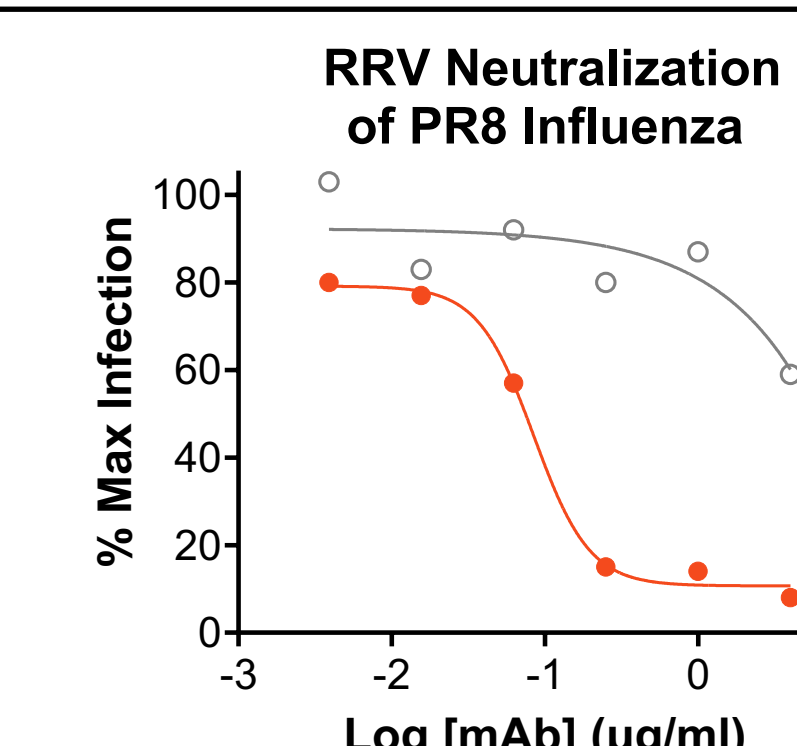
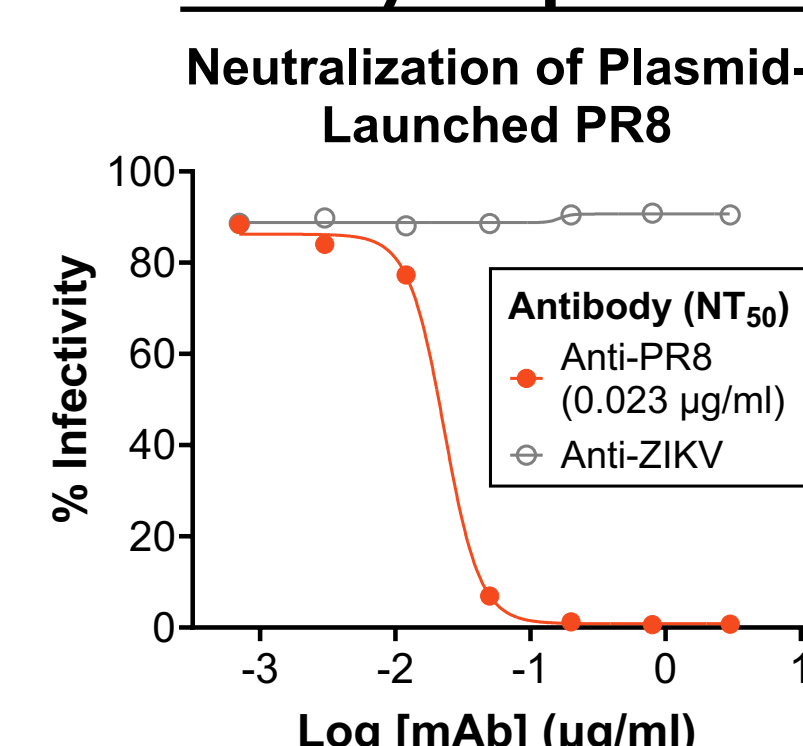
H1N1:
• A/Wisconsin/67/2022
• A/New Caledonia/20/1999
H3N2:
• A/Darwin/9/2022
• A/Massachusetts/18/2022
H5N1:
• A/Vietnam/1203/2024
• A/Texas/37/2024

**Growing catalog of strains and ability to adapt to new strains
within weeks for seasonal flu assays and pandemic response**

Modular Reagents for Multiple Readouts

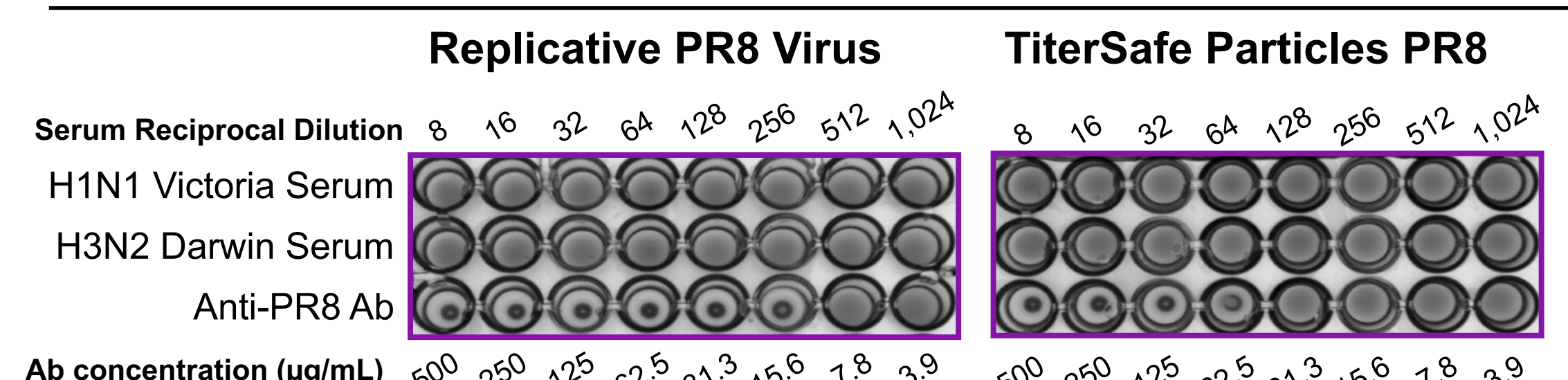
Live Virus	Ready Reporter Virus™	TiterSafe Particles™
Staining or Plaque	Optical Reporter	Agglutination
Traditional Microneut.	10x Faster Microneut.	HAI Assay

Ready Reporter Virus™ concordance with live virus neutralization titers



• Live H1N1 A/PR/8/34 virus and corresponding RRVs were neutralized by anti-PR8 Ab (NR-48783) with similar titers

TiterSafe Particles™ concordance with live virus HAI titers



• Live H1N1 influenza A/PR/8/34 virus and TiterSafe equivalent both showed HA inhibition by anti-PR8 Ab, and not by sera recognizing H1N1 Victoria or H3N2 Darwin

