INFECTIOUS DISEASE

ANTIBODIES AND ANTIGENS

FORTIS® LIFE SCIENCES

UNMATCHED EXPERTISE AND REAGENT QUALITY

At Arista Biologicals, we help lateral flow and rapid test manufacturers overcome the challenges of infectious disease assay development. Our extensive portfolio of antibodies, antigens, and colloidal gold conjugates, supported by custom conjugation services, is validated for consistency, specificity, and manufacturability. We focus on solving problems such as antigen variability, cross-reactivity, and signal inconsistency to ensure test developers achieve robust, scalable performance from early research through commercialization.

We partner with assay developers and manufacturers to overcome the most common challenges in infectious disease testing. Through validated antibodies, antigens, and custom conjugation services, Arista helps customers build assays that perform consistently—from concept to large-scale production.

WHY CHOOSE COLLOIDAL GOLD CONJUGATES?

Colloidal gold nanoparticles remain the gold standard for lateral flow assay detection due to their exceptional signal stability, bright and easily visible readouts, and straightforward conjugation chemistry compatible with antibodies and antigens. Their strong optical properties generate clear, user-friendly test lines without needing specialized instruments.

Colloidal gold conjugation preserves epitope integrity and ensures stable antibody-antigen interactions, which are critical for sensitive and specific detection. Arista Biologicals offers custom conjugation of any catalog antibody or customer-provided antibody to colloidal gold, providing flexibility for assay development.

OUR CAPABILITIES AT A GLANCE

- Validated antibodies and antigens optimized for lateral flow use
- Custom conjugation and reagent matching services.
- Technical collaboration to reduce false reactivity and improve signal stability
- Scalable supply and manufacturing continuity to support global demand

TACKLING COVID-19 CHALLENGES WITH PRECISION ANTIGENS

CHALLENGE

Variant evolution continues to impact test performance, making it difficult for diagnostic assays to maintain sensitivity and specificity across emerging SARS-CoV-2 strains.

ARISTA'S SOLUTION

We supply high-purity SARS-CoV-2 spike protein and nucleocapsid protein antigens and validated antibodies. These reagents support consistent antibody binding across variants and are optimized for lateral flow formats, helping manufacturers maintain reliable detection as the virus evolves.

KEY SOLUTION HIGHLIGHTS

- High-purity spike protein antigens
- Reliable detection across variants
- High assay sensitivity and specificity

WHY DEVELOPERS CHOOSE ARISTA

- Consistent reagent performance
- Responsive technical support
- Trusted by global leaders in rapid diagnostics

SARS-COV-2 NP ANTIBODIES

LFA ROLE	CAT. NO.	CLONE	GOLD CAT. NO.	PAIRINGS
MOUSE ANTI-SARS-COV-2NP MONOCLONAL ANTIBODIES				
●	ABCOV-0401	1	-	ABCOV-0402, ABCOV-0403, ABCOV-0411, ABCOV-0413, AGCOV-0230
●|◆	ABCOV-0402	2	CGOV-0702	ABCOV-0401
●|◆	ABCOV-0403	3	CGOV-0703	ABCOV-0401, AGCOV-0232
◆	ABCOV-04011	11	CGOV-0711	ABCOV-0401
◆	ABCOV-04013	13	CGOV-0713	ABCOV-0401

COVID-19 ANTIGENS

LFA ROLE	CAT. NO.	GOLD CAT. NO.	PAIRINGS
COVID - 19 NUCLEOCAPSID ANTIGEN			
●|◆	ABCOV-0232	CGCOV-0632	ABCOV-0403
COVID - 19 SPIKE PROTEIN ANTIGENS			
●|◆	AGCOV-0230	CGCOV-0630	ABCOV-0401, AGCOV-0231, AGC0V-0233
●|◆	AGCOV-0231	CGCOV-0631	AGCOV-0230
●|◆	AGCOV-0233	CGCOV-0633	AGCOV-0230

● CAPTURE ANTIBODY ◆ DETECTION ANTIBODY ●|◆ CAPTURE / DETECTION

ROBUST SOLUTIONS FOR COMPLEX HIV DIAGNOSTICS

CHALLENGE

Genetic variability and delayed seroconversion complicate early detection making it difficult to identify HIV during early infection stages across diverse strains.

ARISTA'S SOLUTION

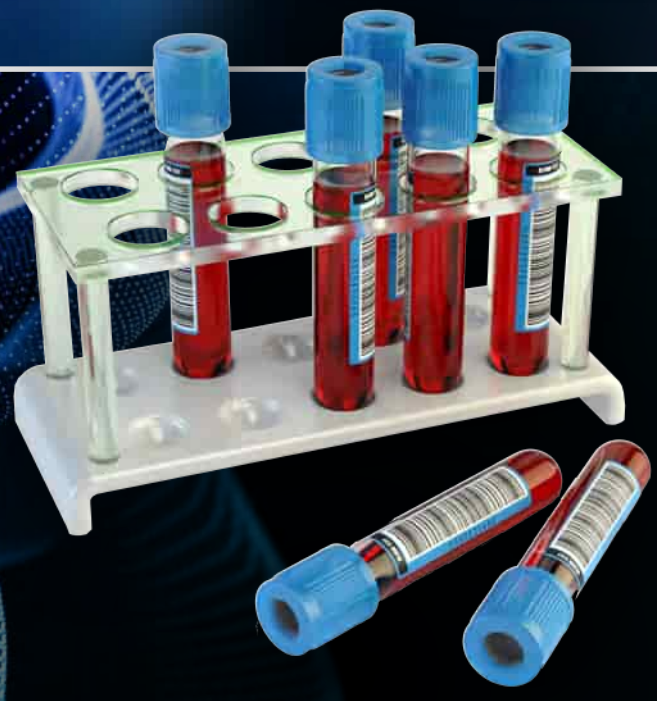
We offer gp41, gp36 and p24 antigens targeting conserved epitopes to enable reliable detection throughout early and chronic infection phases. These antigens support consistent performance in lateral flow assays, helping manufacturers develop sensitive, strain-inclusive HIV tests suitable for global populations and high-throughput environments.

KEY SOLUTION HIGHLIGHTS

- gp41, gp36 and p24 antigens targeting conserved epitopes
- Reliable detection in early and chronic phases
- Strain-inclusive performance across HIV variants

WHY DEVELOPERS CHOOSE ARISTA

- High-performance reagents for HIV diagnostics
- Consistent reagent performance
- High batch-to-batch reproducibility



RECOMBINANT HIV ANTIGENS

LFA ROLE	CAT. NO.	GOLD CAT. NO.	PAIRINGS
HIV-1 P24 ANTIGENS			
◆	AGHIV-0245	CGHIV-0640	-
HIV-1 GP41 ANTIGENS			
●	AGHIV-0222.2	-	Itself
●	AGHIV-0229	-	-
HIV-1 GP120/GP41 ANTIGENS			
◆	AGHIV-0238	CGHIV-0638	-
●	AGHIV-0241	-	Itself, AGHIV-0212
HIV-2 GP36 ANTIGENS			
●	AGHIV-0212	-	AGHIV-0213, AGHIV-0241
◆	AGHIV-0213	CGHIV-0613	AGHIV-0212
●|◆	AGHIV-0215	-	Itself
●	AGHIV-0219	-	AGHIV-0248, AGHIV-0249
HIV-1/2 GP36/GP41 ANTIGENS			
◆	AGHIV-0247	CGHIV-0647	-
◆	AGHIV-0248	CGHIV-0648	AGHIV-0219, AGHIV-0249
◆	AGHIV-0249	CGHIV-0649	AGHIV-0219

● CAPTURE ANTIBODY ◆ DETECTION ANTIBODY ●|◆ CAPTURE / DETECTION

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EMPOWERING SCALABLE SCREENING FOR HEPATITIS B VIRUS

CHALLENGE

Gaps in global HBV diagnosis persist due to diverse infection phases, including occult and immune control states, undetected by conventional assays. Diagnostic sensitivity is compromised by antigenic variability and transient HBsAg expression. Limited access to advanced testing technologies hampers timely detection and treatment initiation.

ARISTA'S SOLUTION

Arista Biologicals supplies high-purity monoclonal and polyclonal antibodies targeting hepatitis B surface antigen (HBsAg) validated for lateral flow assay development. These reagents offer strong binding affinity, ensuring reproducible signal generation and consistent assay performance. This enables sensitive and scalable HBV detection systems suited for high-volume production.

KEY SOLUTION HIGHLIGHTS

- High-purity monoclonal and polyclonal antibodies to hepatitis B (HBsAg)
- Supports detection in both vaccinated and unvaccinated populations
- Consistent, high signal intensity ensures reliable performance

WHY DEVELOPERS CHOOSE ARISTA

- Proven performance in rapid test formats
- Scalable solutions for high-volume manufacturing
- Collaborative partnerships with diagnostic developers

HEPATITIS B ANTIBODIES

LFA ROLE	CAT. NO.	CLONE	GOLD CAT. NO.	PAIRINGS
MOUSE ANTI-HBSAG MONOCLONAL				
◆	ABHBS-0404	4	CGHBS-0704	ABHBS-0405, ABHBS-0500, ABHHB-0500
●	ABHBS-0405	5	-	ABHBS-0404, ABHBS-0500, ABHHB-0500
◆	ABHBS-0406	6	CGHBS-0706	ABHBS-0500, ABHHB-0500
GOAT ANTI-HBSAG POLYCLONAL				
●	ABHBS-0500	-	-	ABHBS-0404, ABHBS-0405, ABHBS-0406
HORSE ANTI-HBSAG POLYCLONAL				
●	ABHHB-0500	-	-	ABHBS-0404, ABHBS-0406

● CAPTURE ANTIBODY ◆ DETECTION ANTIBODY ●|◆ CAPTURE / DETECTION

GENOTYPE-INCLUSIVE DETECTION OF HEPATITIS C VIRUS

CHALLENGE

High genetic heterogeneity among HCV genotypes complicates broad-spectrum antigen detection, increasing risk of false negatives. Reliable global screening requires reagents that maintain sensitivity and specificity across all major genotypes and subtypes.

ARISTA'S SOLUTION

Our HCV reagents are optimized for rapid test formats, delivering consistent performance across diverse genotypes. They combine high specificity with compatibility for lateral flow assay development, supporting scalable, genotype-inclusive diagnostic solutions.

KEY SOLUTION HIGHLIGHTS

- Robust detection across all major HCV genotypes
- High specificity minimizes cross-reactivity and false positives
- Compatible with lateral flow assay formats for rapid testing

WHY DEVELOPERS CHOOSE ARISTA

- High-purity reagents with proven performance
- Reliable and reproducible results
- Trusted by diagnostic manufacturers

HEPATITIS C ANTIGENS

LFA ROLE	CAT. NO.	GOLD CAT. NO.	PAIRINGS
HEPATITIS C VIRUS ANTIGENS			
●	AGHCV-0231	-	AGHCV-0232
●|◆	AGHCV-0232	CGHCV-0632	AGHCV-0231

● CAPTURE ANTIBODY ◆ DETECTION ANTIBODY ●|◆ CAPTURE / DETECTION

INFLUENZA DETECTION USING CONSERVED NP ANTIBODIES

CHALLENGE

Antigenic drift and seasonal strain variation reduce test consistency, making it difficult for assays to maintain reliable detection across influenza A and B strains.

ARISTA'S SOLUTION

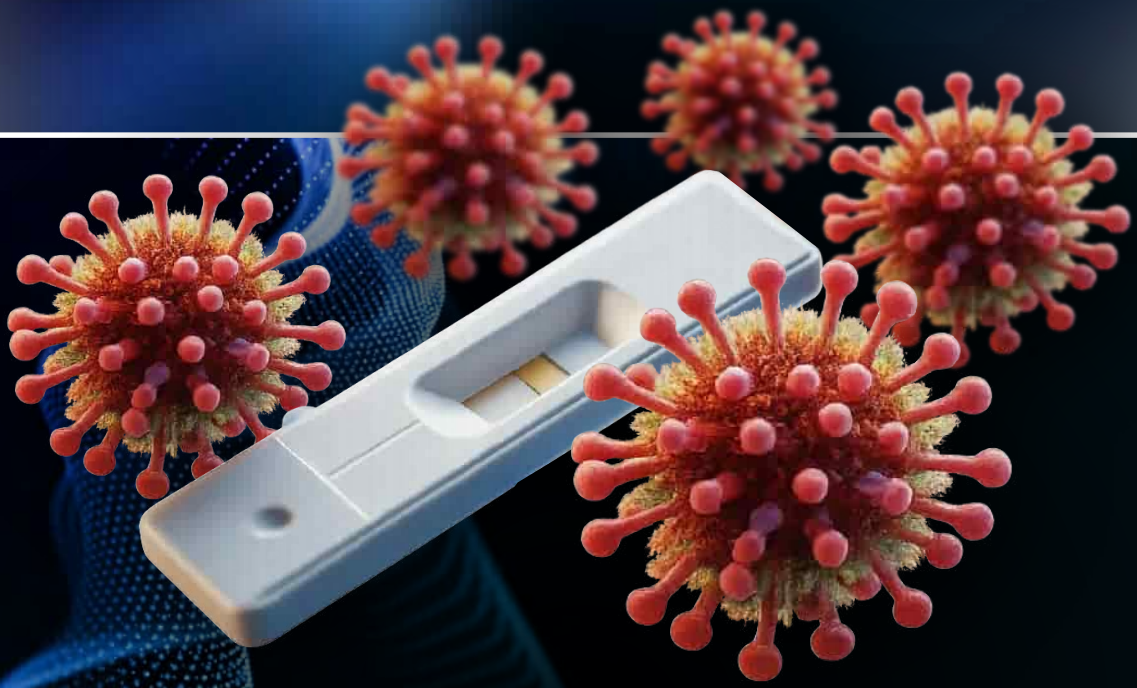
Arista Biologicals addresses this challenge with monoclonal antibodies targeting the conserved nucleoprotein (NP), a stable internal marker shared across influenza strains. Validated for lateral flow applications and available with colloidal gold conjugation, these NP-specific antibodies deliver consistent signal and support scalable assay development across flu seasons.

KEY SOLUTION HIGHLIGHTS

- Monoclonal antibodies targeting conserved NP regions
- Proven reliability across multiple influenza strains
- Validated for lateral flow assay formats

WHY DEVELOPERS CHOOSE ARISTA

- High-performance reagents for respiratory virus diagnostics
- Consistent signal generation across seasonal variants
- Scalable solutions for high-throughput manufacturing



INFLUENZA A/ B ANTIBODIES

LFA ROLE	CAT. NO.	CLONE	GOLD CAT. NO.	PAIRINGS
MOUSE ANTI-INFLUENZA A MONOCLONAL ANTIBODIES				
◆	ABINF-0401	1	CGINF-0701	ABINF-0402, ABINF-0407
●	ABINF-0406	6	-	ABINF-0407
◆	ABINF-0407	7	CGINF-0707	ABINF-0401, ABINF-0406
●	ABINF-04011	11	-	ABINF-0412
◆	ABINF-0412	12	CGINF-0712	ABINF-0411
MOUSE ANTI-INFLUENZA B MONOCLONAL ANTIBODIES				
●	ABINF-0402	2	-	ABINF-0401
◆	ABINF-0441	41	CGINF-0741	ABINF-0442
●	ABINF-0442	42	-	ABINF-0441

● CAPTURE ANTIBODY ◆ DETECTION ANTIBODY ●|◆ CAPTURE / DETECTION

LEARN MORE AT

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PRECISION NS1 ANTIBODIES ENABLE EARLY DENGUE DETECTION

CHALLENGE

Diagnostic complexity due to four dengue serotypes and cross-reactivity with other flaviviruses can compromise assay sensitivity and accuracy. Early detection is critical for clinical management.

ARISTA'S SOLUTION

Arista Biologicals supplies validated monoclonal antibodies targeting the NS1 protein, an early-phase marker presents in all dengue serotypes. Offered in native or colloidal gold-conjugate formats, these antibodies support sensitive, specific lateral flow tests—minimizing cross-reactivity with non-dengue flaviviruses and enabling reliable diagnosis early in infection.

KEY SOLUTION HIGHLIGHTS

- Monoclonal antibodies with robust NS1 serotype coverage
- Early-phase (day 1–7) detection for rapid clinical response
- Reduced cross-reactivity with other flaviviruses

WHY DEVELOPERS CHOOSE ARISTA

- Demonstrated consistency across all dengue serotypes
- Ongoing R&D for emerging pathogen needs
- Secure, scalable supply chain for uninterrupted manufacturing

DENGUE ANTIBODIES

LFA ROLE	CAT. NO.	CLONE	GOLD CAT. NO.	PAIRINGS
MOUSE ANTI-DENGUE NS1 MONOCLONAL ANTIBODIES				
◆	ABDEN-0411	11	CGDEN-0711	ABDEN-0414
◆	ABDEN-0412	12	CGDEN-0712	-
◆	ABDEN-0413	13	CGDEN-0713	-
●	ABDEN-0414	14	-	ABDEN-0411

● CAPTURE ANTIBODY ◆ DETECTION ANTIBODY ●|◆ CAPTURE / DETECTION



DUAL-TARGET ANTIGENS FOR SYPHILIS DETECTION

CHALLENGE

Multi-stage disease detection requires high sensitivity in early infection and specificity to distinguish active from past disease. False positives and fluctuating antibody expression can undermine assay consistency.

ARISTA'S SOLUTION

Arista Biologicals offers TP17 and TP45 antigens, targeting distinct Treponema pallidum epitopes for broad coverage across all syphilis infection stages. Conjugation by passive adsorption to colloidal gold preserves antigen structure, ensuring strong, consistent lateral flow assay signal for both early and late phase detection.

KEY SOLUTION HIGHLIGHTS

- Dual-antigen coverage for reliable multi-stage detection
- Reduced false reactivity and enhanced specificity
- Strong, visible signal in rapid test formats

WHY DEVELOPERS CHOOSE ARISTA

- High-purity antigens with preserved epitope integrity.
- Technical support for assay optimization and scale-up.
- Batch-to-batch consistency for scalable, high-volume manufacturing

SYPHILIS ANTIGENS

LFA ROLE	CAT. NO.	GOLD CAT. NO.	PAIRINGS
SYPHILIS TREPONEMA PALLIDUM ANTIGENS			
●|◆	AGSPL-0202	CGSPL-0602	AGSPL-0242
●|◆	AGSPL-0242	CGSPL-0642	AGSPL-0202
●	AGSPL-0231	-	-

● CAPTURE ANTIBODY ◆ DETECTION ANTIBODY ●|◆ CAPTURE / DETECTION



OPTIMIZED ANTIGENS AND ANTIBODIES FOR HELICOBACTER PYLORI

CHALLENGE

Low antibody titers and gastric matrix interference complicate detection. Distinguishing active infection from past exposure is critical, while maintaining signal clarity across diverse clinical settings is essential for accurate lateral flow assay interpretation.

ARISTA'S SOLUTION

Arista Biologicals supplies high-affinity monoclonal antibodies and purified H. pylori antigens optimized for lateral flow assay development. Our reagents enable sensitive and specific detection of active infection, delivering consistent performance that ensures high sensitivity and specificity. This facilitates accurate point-of-care testing with cost-efficient, scalable reagent production.

KEY SOLUTION HIGHLIGHTS

- Strong, stable signals validated for high sensitivity and specificity
- Consistent performance across various sample types and clinical environments
- Scalable production supports rapid, cost-effective test manufacturing

WHY DEVELOPERS CHOOSE ARISTA

- Proven performance in lateral flow formats
- High-purity components for reproducible results
- Trusted by diagnostic manufacturers

H. PYLORI MONOCLONAL ANTIBODIES

LFA ROLE	CAT. NO.	CLONE	GOLD CAT. NO.	PAIRINGS
MOUSE ANTI-HELICOBACTER PYLORI MONOCLONAL ANTIBODIES				
◆	ABHPY-0403	3	-	ABHPY-0404
◆	ABHPY-0404	4	CGHPY-0704	Itself, ABHPY-0403

H. PYLORI ANTIGENS

LFA ROLE	CAT. NO.	GOLD CAT. NO.	PAIRINGS
HELICOBACTER PYLORI ANTIGENS			
●	AGHPY-0103	-	AGHPY-0104
◆	AGHPY-0104	CGHPY-0604	AGHPY-0103

● CAPTURE ANTIBODY ◆ DETECTION ANTIBODY ●|◆ CAPTURE / DETECTION

SENSITIVE SPECIES-SPANNING MALARIA DIAGNOSTICS TARGETS



CHALLENGE

Malaria's high endemic burden and mixed-species infections complicate detection. Low parasitemia and antigenic variability reduce sensitivity, while mixed infections require broad diagnostic coverage. Rapid, scalable assays are need ed for effective global control.

ARISTA'S SOLUTION

Arista Biologicals offers validated monoclonal antibodies and antigens targeting multiple key malaria biomarkers, including Plasmodium Lactate Dehydrogenase (pLDH), total LDH, and Histidine-Rich Protein II (HRP II). While pLDH and total LDH are conserved across Plasmodium species, HRP II is specific to P. falciparum.

KEY SOLUTION HIGHLIGHTS

- Strong, stable signal intensity in lateral flow formats
- Effective detection even in low parasitemia clinical samples
- Broadly reactive pLDH antibodies covering multiple Plasmodium species

WHY DEVELOPERS CHOOSE ARISTA

- High-purity reagents with proven performance
- Compatible with field and clinical diagnostic formats
- Trusted by global health programs and commercial test developers

MALARIA ANTIBODIES

LFA ROLE	CAT. NO.	CLONE	GOLD CAT. NO.	PAIRINGS
MOUSE ANTI-MALARIA HRPII MONOCLONAL ANTIBODIES				
◆	ABMAL-0404	4	CGMAL-0704	ABMAL-0405, ABMAL-0447, ABMAL-0448
●	ABMAL-0405	5	-	ABMAL-0404
●	ABMAL-0444	44	-	ABMAL-0445, ABMAL-0446, ABMAL-0447, ABMAL-0448
●|◆	ABMAL-0445	45	CGMAL-0745	ABMAL-0444, ABMAL-0446, ABMAL-0447, ABMAL-0448
●|◆	ABMAL-0446	46	CGMAL-0746	ABMAL-0444, ABMAL-0445, ABMAL-0447, ABMAL-0448
◆	ABMAL-0447	47	CGMAL-0747	ABMAL-0404, ABMAL-0444, ABMAL-0445, ABMAL-0446
●	ABMAL-0448	48	-	ABMAL-0404, ABMAL-0444, ABMAL-0445, ABMAL-0446
MOUSE ANTI-MALARIA pfLDH MONOCLONAL ANTIBODIES				
◆	ABMAL-0422	22	CGMAL-0722	ABMAL-0421, ABMAL-0434, ABMAL-0436
●	ABMAL-0438	38	-	ABMAL-0421, ABMAL-0436
MOUSE ANTI-MALARIA PvLDH MONOCLONAL ANTIBODIES				
●	ABINF-0433	33	-	ABMAL-0421, ABMAL-0434, ABMAL-0436
MOUSE ANTI-MALARIA PAN pLDH MONOCLONAL ANTIBODIES				
◆	ABMAL-0421	21	CGMAL-0721	Itself, ABMAL-0422, ABMAL-0423, ABMAL-0424, ABMAL-0433, ABMAL-0438
●	ABMAL-0423	23	-	ABMAL-0421, ABMAL-0434, AMBAL-0436
●	ABMAL-0424	24	-	ABMAL-0421
◆	ABMAL-0434	34	CGMAL-0734	ABMAL-0422, ABMAL-0423, ABMAL-0433, ABMAL-0436
◆	ABMAL-0436	36	CGMAL-0736	ABMAL-0422, ABMAL-0423, ABMAL-0433, ABMAL-0434, ABMAL-0438
RECOMBINANT MALARIA MEROZOITE SURFACE PROTEIN (MSP-1) ANTIGENS				
●	AGMAL-0212	-	-	-
◆	AGMAL-0232	-	CGMAL-0632	-
●	AGMAL-0242	-	-	-
◆	AGMAL-0252	-	CGMAL-0652	-

● CAPTURE ANTIBODY ◆ DETECTION ANTIBODY ●|◆ CAPTURE / DETECTION

RELIABLE DETECTION ACROSS WEST NILE VIRUS LINEAGES

CHALLENGE

West Nile virus lineage diversity and potential cross-reactivity with related flaviviruses can complicate sensitive, specific detection of intact virus.

ARISTA'S SOLUTION

We offer well-characterized monoclonal antibodies against the West Nile virus envelope protein that recognize accessible, conserved surface epitopes across multiple lineages. These antibodies support sensitive detection of intact virions while helping reduce cross-reactivity with other flaviviruses, enabling developers to build reliable WNV lateral flow assays.

KEY SOLUTION HIGHLIGHTS

- Envelope-protein targeting for intact virus detection
- Reliable detection across multiple WNV lineages
- Helps mitigate cross-reactivity risk with related flaviviruses

WHY PARTNER WITH ARISTA BIOLOGICALS

- Reliable reagent quality for consistent assay performance
- Flexible manufacturing capacity to support scale-up
- Expert technical guidance from development through production

WEST NILE VIRUS ANTIBODIES

LFA ROLE	CAT. NO.	CLONE	GOLD CAT. NO.	PAIRINGS
MOUSE ANTI-WEST NILE VIRUS (ENV) MONOCLONAL ANTIBODIES				
◆	ABWNV-0400	-	CGWNV-0700	-
◆	ABWNV-0401	1	CGWNV-0701	-
◆	ABWNV-0402	2	CGWNV-0702	-

WEST NILE VIRUS ANTIGENS

LFA ROLE	CAT. NO.	SPECIFICITY	PAIRINGS
WEST NILE VIRUS ANTIGENS			
●	AGWNV-0300	LINEAGE 2	-
●	AGWNV-0301	LINEAGE 1	-
●	AGWNV-0302	ENVELOPE PROTEIN	-

● CAPTURE ANTIBODY ◆ DETECTION ANTIBODY ●|◆ CAPTURE / DETECTION



COLLABORATE WITH CONFIDENCE

From reagent development to manufacturing scale-up, Arista Biologicals provides comprehensive technical support and dependable supply. Partner with us for validated reagents, consistent performance, and accelerating your time to market with confidence.

WHY PARTNER WITH ARISTA BIOLOGICALS

- 35 + years' experience in lateral flow solutions
- In house conjugation and QC for reliable batch to batch performance
- Dedicated scientific support for assay optimization
- Scalable formulation and supply capabilities

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