



BIORESOURCES

Health Monitoring Report

Based on FELASA Recommendations

Name and address of the breeder: Marshall BioResources, North Rose NY

Date of issue: April 2020

Examination date: Quarter 1, 2020

Species: Canine

Breed: APD/SPF Beagle

Populated: Barrier established 2008

| | CUMULATIVE RESULTS | CURRENT TEST RESULTS | LABORATORY | METHOD |
|--|--------------------|----------------------|------------|------------------------------|
| <u>VIRAL INFECTIONS</u> | | | | |
| Compulsory Agents: | | | | |
| Canine Adenovirus type 1 | 0/220 | 0/10 | Cornell | SN (Serum) |
| Canine Adenovirus type 2 (pre 7/2013) ^a | 68/220 | NA | MSU | VN (Serum) |
| Canine Adenovirus type 2 (post 7/2013) | 0/660 | 0/10 | MSU | VN (Serum) |
| Canine Distemper Virus | 0/262 | 0/10 | MSU | VN (Serum) |
| Canine Herpesvirus | 0/370 | 0/10 | Cornell | SN (Serum) |
| Canine Parainfluenza Virus | 0/262 | 0/10 | Cornell | SN (Serum) |
| Canine Parvovirus | 0/262 | 0/10 | MSU | HI (Serum) |
| Canine Rabies virus | 0/220 | 0/10 | KSU | RFFIT (Serum) |
| <u>BACTERIAL INFECTIONS</u> | | | | |
| Compulsory Agents: | | | | |
| Bordetella bronchiseptica (PCR) ^b | 24/828 | 6/120 | KSU | PCR (Pharyngeal /Nasal Swab) |
| B. bronchiseptica (Culture) ^b | 32/936 | 8/130 | MSU | Culture (Nasal Swab) |
| Borrelia sp. | 0/330 | 0/10 | In House | Snap 4Dx |
| Brucella canis | 0/270 | 0/10 | In House | Card Test |
| Leptospira sp. | 0/220 | 0/10 | MSU | MAT (Serum) |
| Salmonella sp. | 0/410 | 0/10 | Cornell | Culture (Rectal Swab) |
| Streptococci, beta-hemolytic Serogroup G | 0/220 | 0/10 | Cornell | Culture (Pharynx Swab) |
| Agents on Request or with Disease: | | | | |
| Campylobacter sp. | 0/420 | 0/10 | Cornell | Culture (Rectal Swab) |
| Ehrlichia sp | 0/260 | 0/10 | In House | Snap 4Dx |
| Yersinia enterocolitica | 0/420 | 0/10 | Cornell | Culture (Rectal swab) |
| <u>PARASITOLOGICAL INFECTIONS</u> | | | | |
| Compulsory Agents: | | | | |
| All arthropods (Demodex canis) | 0/340 | 0/10 | In House | Skin Scrape |
| All helminths | 0/477 | 0/10 | In House | Sodium Nitrate (Fecal) |
| Coccidia | 0/824 | 0/10 | In House | Sodium Nitrate (Fecal) |
| Giardia sp. | 0/800 | 0/10 | Cornell | ELISA (Fecal) |
| Mycoplasma haemocanis | 0/300 | 0/10 | Cornell | Blood Smear |
| Agents on Request: | | | | |
| Angiosrnylus vasorum | 0/800 | 0/10 | In House | Zinc Sulfate (Fecal) |
| Babesia sp. | 0/300 | 0/10 | Cornell | Blood Smear |
| Cryptosporidium | 0/800 | 0/10 | Cornell | ELISA (Fecal) |
| Dipetalonema reconditum | 0/300 | 0/10 | Cornell | Blood Smear |
| Dirofilaria immitis | 0/260 | 0/10 | In House | Snap 4Dx |
| Leishmania sp. | 0/300 | 0/10 | Cornell | Kinetic ELISA (Serum) |

NA=Not applicable

Laboratories:

Cornell: Cornell University, Animal Health Diagnostic Center, 240 Farrier Road, Ithaca, NY 14853

MSU: Michigan State University, Veterinary Diagnostic Laboratory, 4125 Beaumont Road, Lansing, MI 48910

KSU: Kansas State University, K-state Rabies Laboratory, 2005 Research Park Circle, Manhattan, KS 66502

Assays:

Card Test: Canine Brucellosis Antibody Test Kit, D-Tec CB, Synbiotics Corp. San Diego, CA 92127

Snap 4Dx: Canine Heartworm Antigen 4Dx-Anaplasma Phagocytophilum-Borrelia Burgdorferi-Ehrlichia Canis Antibody Test Kit, IDEXX Laboratories, Westbrook, MI 04092

- a Positive CAV-2 (vaccine associated strain) detected by VN in June 2012. The breeding colony was turned over to remove all vaccinated dogs or unvaccinated dogs housed with those that received vaccines. CAV-2 titers were eliminated in the summer of 2014.
- b Positive Bordetella PCR results were observed from pharyngeal swabs in early 2014, and the results were confirmed by MAT and nasal culture in June 2014. Antibiotic treatments were initiated to eradicate, and included colony wide treatment with Doxycycline and Oxytetracycline treatments in the water. Monthly surveillance via PCR on nasal swabs remained negative following treatment. However, in 2017 positives were identified again via MAT testing not associated with the routine colony health monitoring, and were subsequently confirmed in September 2017 by positive nasal cultures. Antibiotic treatment with Azithromycin was initiated in October 2017, followed by water treatment with Oxytetracycline. The colony will continue to be routinely monitored for Bordetella by nasal culture and PCR.

On February 21, 2020 we submitted routine nasal swabs to two independent labs for culture and PCR testing for Bordetella bronchiseptica. We received 2 positive culture and PCR results, despite having been free of Bordetella on routine testing for 2-3 years. Additional testing of pen mates revealed six additional positive animals. At this time, we theorize that this is likely not a new infection but that the Bordetella identified in 2017 may have just been suppressed to very low levels by the ongoing tetracycline treatments. We recently discontinued these treatments due to concerns regarding judicious use of antibiotics and potential resistance. We have formulated a plan of resumed tetracycline treatments in addition to doxycycline treatment of all dams after whelping and pups at weaning. Please note there are no clinical signs present.

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04/20/2020
Date