

FINAL REPORT OF LABORATORY EXAMINATION

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IDEXX BioAnalytics Case # 17840-2019

Received: 6/19/2019

Completed: 6/25/2019

Submitted By

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Specimen Description

Species: mouse  
Breed/Strain: CR ATH HE  
Description: Whole Animal  
Number of Specimens/Animals: 9  
Building/Facility: Discovery Ridge

Client ID	Investigator	Room #	Species	Strain /Breed	Sex	Rack	Date Placed
116-A	Franklin	W116	mouse	CR ATH HE	F	1	3/18/2019
116-B	Franklin	W116	mouse	CR ATH HE	F	3	3/18/2019
116-C	Franklin	W116	mouse	CR ATH HE	F	4	3/18/2019
116-D	Bryda	W116	mouse	CR ATH HE	F	5	3/18/2019
113-A	Bryda	W113	mouse	CR ATH HE	F	2	3/18/2019
113-B	Bryda	W113	mouse	CR ATH HE	F	3	3/18/2019
113-C	Bryda	W113	mouse	CR ATH HE	F	4	3/18/2019
113-D	Bryda	W113	mouse	CR ATH HE	F	5	3/18/2019
113-E	Bryda	W113	mouse	CR ATH HE	F	6	3/18/2019

Services/Tests Performed: MMRRC Mouse Rederivation Necropsy Profile (1-9)

**Serologic evaluation for antibodies to:** *Clostridium piliforme*, *Mycoplasma pulmonis*, CAR bacillus, Ectromelia, EDIM, LCMV, MAV1, MAV2, MCMV, MHV, MNV, MPV, MVM, Polyoma, PVM, REO3, Sendai, TMEV, *Encephalitozoon cuniculi*

**PCR evaluation for:** *Helicobacter bilis*, *Helicobacter ganmani*, *Helicobacter hepaticus*, *Helicobacter mastomyrinus*, *Helicobacter rodentium*, *Helicobacter spp.*, *Helicobacter typhlonius*, *Mycoplasma pulmonis*, *Streptococcus sp.* beta hemolytic Group A, *Streptococcus sp.* beta hemolytic Group B, *Streptococcus sp.* beta hemolytic Group C, *Streptococcus sp.* beta hemolytic Group G

**Parasitologic evaluation for:** fur mites, mesostigmatid mites, lice, *Spironucleus muris*, *Giardia muris*, large intestinal flagellates and amoeba, pinworms and tapeworms

**Microbiologic evaluation for:** *Citrobacter rodentium*, *Corynebacterium kutscheri*, *Klebsiella oxytoca*, *Klebsiella pneumoniae*, *Pasteurella multocida*, *Pasteurella pneumotropica* biotype Heyl, *Pasteurella pneumotropica* biotype Jawetz, *Salmonella enterica*, *Streptococcus pneumoniae*

**General Comments:** Discovery Ridge - 2019 Q2 'A' room mouse sentinel necropsies

**Summary:** All test results were negative. Please see the report for details.

## NECROPSY

No gross lesions were detected in any of the body systems and organs examined.

## SEROLOGY SUMMARY

	116-A	116-B	116-C	116-D	113-A	113-B	113-C	113-D	113-E
CAR bacillus	-	-	-	-	-	-	-	-	-
<i>Encephalitozoon cuniculi</i>	-	-	-	-	-	-	-	-	-
Ectromelia	-	-	-	-	-	-	-	-	-
EDIM	-	-	-	-	-	-	-	-	-
LCMV	-	-	-	-	-	-	-	-	-
<i>Mycoplasma pulmonis</i>	-	-	-	-	-	-	-	-	-
MAV1	-	-	-	-	-	-	-	-	-
MAV2	-	-	-	-	-	-	-	-	-
MCMV	-	-	-	-	-	-	-	-	-
MHV	-	-	-	-	-	-	-	-	-
MNV	-	-	-	-	-	-	-	-	-
MPV	-	-	-	-	-	-	-	-	-
MVM	-	-	-	-	-	-	-	-	-
Polyoma	-	-	-	-	-	-	-	-	-
PVM	-	-	-	-	-	-	-	-	-
REO3	-	-	-	-	-	-	-	-	-
TMEV	-	-	-	-	-	-	-	-	-
Sendai	-	-	-	-	-	-	-	-	-
<i>Clostridium piliforme</i>	-	-	-	-	-	-	-	-	-
Mouse IgG	N	N	N	N	N	N	N	N	N

**Legend:** + = positive - = negative blank = test not performed EQ = equivocal HE = hemolysis precluded testing I = insufficient W = weak positive WB = Western Blot confirmatory analysis pending NS = non-specific reactivity N = normal IgG L = less than normal IgG

## PCR EVALUATION

feces	116-A	116-B	116-C	116-D	113-A	113-B	113-C	113-D	113-E
<i>Helicobacter</i> spp.	-	-	-	-	-	-	-	-	-
<i>Helicobacter bilis</i>	-	-	-	-	-	-	-	-	-
<i>Helicobacter ganmani</i>	-	-	-	-	-	-	-	-	-
<i>Helicobacter hepaticus</i>	-	-	-	-	-	-	-	-	-
<i>Helicobacter mastomyrinus</i>	-	-	-	-	-	-	-	-	-
<i>Helicobacter rodentium</i>	-	-	-	-	-	-	-	-	-
<i>Helicobacter typhlonius</i>	-	-	-	-	-	-	-	-	-

oral swab	116-A	116-B	116-C	116-D	113-A	113-B	113-C	113-D	113-E
<i>Mycoplasma pulmonis</i>	-	-	-	-	-	-	-	-	-
<i>Streptococcus</i> sp. beta hemolytic Group A	-	-	-	-	-	-	-	-	-
<i>Streptococcus</i> sp. beta hemolytic Group B	-	-	-	-	-	-	-	-	-
<i>Streptococcus</i> sp. beta hemolytic Group C	-	-	-	-	-	-	-	-	-
<i>Streptococcus</i> sp. beta hemolytic Group G	-	-	-	-	-	-	-	-	-

Legend: + = positive - = negative id:id = pooled sample range id+id+id = non-range pooled sample NT or blank = no test performed wps = weak positive XX = Testing in progress

## PARASITOLOGY

	116-A	116-B	116-C	116-D	113-A	113-B	113-C	113-D	113-E
parasites	-	-	-	-	-	-	-	-	-

## MICROBIOLOGY

Specimen/Source: cecum

Isolate	116-A	116-B	116-C	116-D	113-A	113-B	113-C	113-D	113-E
<i>Citrobacter rodentium</i>	-	-	-	-	-	-	-	-	-
<i>Klebsiella oxytoca</i>	-	-	-	-	-	-	-	-	-
<i>Klebsiella pneumoniae</i>	-	-	-	-	-	-	-	-	-
<i>Salmonella enterica</i>	-	-	-	-	-	-	-	-	-

Specimen/Source: oral swab

Isolate	116-A	116-B	116-C	116-D	113-A	113-B	113-C	113-D	113-E
<i>Corynebacterium kutscheri</i>	-	-	-	-	-	-	-	-	-
<i>Pasteurella multocida</i>	-	-	-	-	-	-	-	-	-
<i>Pasteurella pneumotropica</i> biotype Heyl	-	-	-	-	-	-	-	-	-
<i>Pasteurella pneumotropica</i> biotype Jawetz	-	-	-	-	-	-	-	-	-
<i>Streptococcus pneumoniae</i>	-	-	-	-	-	-	-	-	-

Legend: + = agent recovered - = agent not recovered blank = test not performed n = no growth X = Preliminary

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IDEXX BioAnalytics Case # 17840-2019

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SEROLOGY DETAILS

	Baseline	116-A	116-B	116-C	116-D	113-A	113-B	113-C	113-D	113-E
<b>CAR bacillus</b>										
CAR bacillus purified bacteria	MFI > 3.750	-	-	-	-	-	-	-	-	-
<b>Encephalitozoon cuniculi</b>										
<i>E. cuniculi</i> purified antigen	MFI > 1.200	-	-	-	-	-	-	-	-	-
<b>Ectromelia</b>										
Ectromelia purified virus	MFI > 2.000	-	-	-	-	-	-	-	-	-
<b>EDIM</b>										
EDIM purified virus	MFI > 4.000	-	-	-	-	-	-	-	-	-
EDIM VP6 recombinant	MFI > 2.500	-	-	-	-	-	-	-	-	-
<b>LCMV</b>										
LCMV recombinant	MFI > 3.000	-	-	-	-	-	-	-	-	-
<b>Mycoplasma pulmonis</b>										
<i>M. pulmonis</i> purified bacteria	MFI > 4.250	-	-	-	-	-	-	-	-	-
<b>MAV1</b>										
MAV1 purified virus	MFI > 3.750	-	-	-	-	-	-	-	-	-
<b>MAV2</b>										
MAV2 purified virus	MFI > 4.500	-	-	-	-	-	-	-	-	-
<b>MCMV</b>										
MCMV purified virus	MFI > 3.500	-	-	-	-	-	-	-	-	-
<b>MHV</b>										
MHV purified virus	MFI > 2.500	-	-	-	-	-	-	-	-	-
MHV NC recombinant	MFI > 2.500	-	-	-	-	-	-	-	-	-
<b>MNV</b>										
MNV purified virus	MFI > 3.000	-	-	-	-	-	-	-	-	-
MNV VP1 recombinant	MFI > 4.000	-	-	-	-	-	-	-	-	-
<b>MPV</b>										

	Baseline	116-A	116-B	116-C	116-D	113-A	113-B	113-C	113-D	113-E
MPV VP2 recombinant	MFI > 2.000	-	-	-	-	-	-	-	-	-
NS1 <sup>1</sup>	MFI > 3.750	-	-	-	-	-	-	-	-	-
<b>MVM</b>										
MVM VP2 recombinant	MFI > 2.000	-	-	-	-	-	-	-	-	-
NS1 <sup>1</sup>	MFI > 3.750	-	-	-	-	-	-	-	-	-
<b>Polyoma</b>										
Polyoma purified virus	MFI > 3.750	-	-	-	-	-	-	-	-	-
<b>PVM</b>										
PVM purified virus	MFI > 2.500	-	-	-	-	-	-	-	-	-
<b>REO3</b>										
REO3 purified virus	MFI > 4.900	-	-	-	-	-	-	-	-	-
<b>TMEV</b>										
TMEV purified virus	MFI > 2.250	-	-	-	-	-	-	-	-	-
RTV purified virus	MFI > 2.750	-	-	-	-	-	-	-	-	-
<b>Sendai</b>										
Sendai purified virus	MFI > 3.750	-	-	-	-	-	-	-	-	-
<b><i>Clostridium piliforme</i></b>										
<i>Clostridium piliforme</i> purified bacteria	MFI > 4.950	-	-	-	-	-	-	-	-	-

**NS1<sup>1</sup>:** NS1 protein is highly conserved among rodent parvoviruses and thus serves as a generic assay for parvovirus seroconversion.

**Legend:** + = positive - = negative blank = test not performed EQ = equivocal HE = hemolysis precluded testing I = insufficient W = weak positive WB = Western Blot confirmatory analysis pending NS = non-specific reactivity N = normal IgG L = less than normal IgG  
Positive MFI results are reported as "+" followed by a number from 1 to 33 in thousands rounded off to the nearest thousand.

# Test Results

Order #: **2019032241**

University of Missouri  
(U Missouri OAR)  
OAR Room 01  
1720 E Campus Drive  
Columbia, MO 65201 USA

Charles River Research Animal Diagnostic Services  
(CR RADS)  
261 Ballardvale Street  
Receiving Dock, Bldg 22  
Wilmington MA 01887 USA

## Billing Information

### Payment Method

Standing Purchase PO#: COLUM-C0000390719  
Order Exp. 6/2019

University of Missouri  
1720 E Campus Drive  
Columbia, MO 65201 USA

## Details

Sample(s) from: DCRC

Collection Date  
19-Jun-2019

Arrival Date  
25-Jun-2019

Approval Date  
28-Jun-2019

## Notes

Disco - 2019 Q2 - Mice sentinel PCR "A" rooms

## Diagnostic Summary

Test	Colony	Tested	+	+/-	?	PDG
All results NEGATIVE						

+ = Positive, +/- = Equivocal, ? = Indeterminate, PDG = Pending

To assure the SPF status of your research animal colonies, it is essential that you understand the sources, pathobiology, diagnosis and control of pathogens and other adventitious infectious agents that may cause research interference. We have summarized this important information in infectious agent **Technical Sheets**, which you can view by visiting [http://www.criver.com/info/disease\\_sheets](http://www.criver.com/info/disease_sheets).

# Test Results

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261 Ballardvale Street  
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Wilmington MA 01887 USA

Sample(s) from: DCRC

## Notes

Disco - 2019 Q2 - Mice sentinel PCR "A" rooms

Results approved by Peck, DiAnne on 28 Jun 2019

## Molecular Diagnostics: Infectious Disease PCR

### U Missouri Mite and Pinworm Screen PCR

	<u>1</u> 113	<u>2</u> 116
Mite PCR	-	-
Pinworm PCR	-	-

## Remarks

- = Negative, +/- = Equivocal; + = Positive; I = Inconclusive.

An equivocal result indicates inconsistent amplification detected by real-time PCR.

Inconclusive indicates failure of control result.

Nucleic Acid Recovery Control (NRC)/Inhibition Control: A low copy exogenous nucleic acid was added to sample lysis prior to nucleic acid isolation to serve as both a control to monitor for nucleic acid recovery and PCR inhibition. An RNA NRC also monitors reverse transcription for RNA virus assays. Nucleic acid recovery and PCR inhibition is monitored by a PCR assay specific for the NRC template. Unless otherwise stated, the control results passed for this order.

Any samples reported as equivocal or positive result in this report has been confirmed by re-extracting nucleic acid and repeating real-time PCR amplification to confirm the initial testing result.

Recommended sample types are essential to accurate results. Missing or inappropriate sample types can effect detection. If this report contains an unexpected result or are unsure of recommended sample types, please contact Lab Services@crl.com before taking any action. Additional or alternative testing may be essential to reaching an accurate diagnosis. We will be glad to test newly submitted samples for the positive agents up to the number of unexpected results in this order.



# Test Results

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Columbia, MO 65201 USA

Charles River Research Animal Diagnostic Services  
(CR RADS)  
261 Ballardvale Street  
Receiving Dock, Bldg 22  
Wilmington MA 01887 USA

Sample(s) from: DCRC

## Notes

Disco - 2019 Q2 - Mice sentinel PCR "A" rooms

## Sample Information

Number	Code	Species	Colony	Investigator	Facility	Location	Strain	Placem ent Date
1	113	Mouse	DCRC Sentinel	Bryda	Discovery Ridge	W113	CR ATH HE	3/18/19
2	116	Mouse	DCRC Sentinel	Franklin / Bryda	Discovery Ridge	W116	CR ATH HE	3/18/19

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IDEXX BioAnalytics Case # 18812-2019

Received: 6/26/2019

Completed: 6/27/2019

**Submitted By**

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**Specimen Description**

Species: mouse  
 Description: Pelt Swab  
 Number of Specimens/Animals: 2  
 Building/Facility: Discovery Ridge

ID	Client ID	Investigator	Room #	Species
1	W116 mouse fur mite swab	Bryda	W116	mouse
2	W113 mouse fur mite swab	Bryda	W113	mouse

**Services/Tests Performed:** Fur Mite (1-2)

PCR evaluation for: *Myocoptes*, *Radfordia*/*Myobia*

**General Comments:** AOQuarterly mouse fur mite testing.

**Summary:** All test results were negative.

## PCR EVALUATION

pelt swab	1	2
<i>Mycoptes</i>	-	-
<i>Radfordia/Myobia</i>	-	-

Legend: + = positive - = negative id:id = pooled sample range id+id+id = non-range pooled sample NT or blank = no test performed wps = weak positive XX = Testing in progress