

FINAL REPORT OF LABORATORY EXAMINATION

4011 Discovery Drive, Columbia, MO 65201

1-800-669-0825 1-573-499-5700

idxxbioanalytics@idexx.com

www.idexxbioanalytics.com

IDEXX BioAnalytics Case # 26931-2018

Received: 9/18/2018

Completed: 9/26/2018

Submitted By

Justin Wilson
MMRRC
University of Missouri-RCA-MMRRC
Columbia, MO 65201

Phone: 573-884-2524
Email: wilsonjus@missouri.edu; KorteS@missouri.edu;
oconnore@missouri.edu; FranklinC@missouri.edu;
watermanjd@missouri.edu; RhoadesJN@missouri.edu

Specimen Description

Species: mouse
Description: Live sentinel mice
Number of Specimens/Animals: 20
Building/Facility: Discovery Ridge
Area: W116, W113

Client ID	Investigator	Room #	Strain /Breed	Sex	Rack	Date Placed
116-A	Franklin	W116	CR ATH HE	F	1	6/18/2018
116-B	Franklin	W116	CR ATH HE	F	2	6/18/2018
116-C	Franklin	W116	CR ATH HE	F	3	6/18/2018
116-D	Franklin	W116	CR ATH HE	F	4	6/18/2018
116-E	Bryda	W116	CR ATH HE	F	5	6/18/2018
116-F	Franklin	W116	CR ATH HE	F	6	6/18/2018
113-A	Bryda	W113	CR ATH HE	F	3	6/18/2018
113-B	Bryda	W113	CR ATH HE	F	4	6/18/2018
113-C	Bryda	W113	CR ATH HE	F	5	6/18/2018
113-D	Bryda	W113	CR ATH HE	F	6	6/18/2018

Services/Tests Performed: Rederivation Necropsy Profile

Serologic evaluation for antibodies to: *Clostridium piliforme*, *Mycoplasma pulmonis*, CAR bacillus, Ectromelia, EDIM, LCMV, LDEV, 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*

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 - 2018 Q3 'A' room sentinel mice 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	116-E	116-F	113-A	113-B	113-C
CAR bacillus	-	-	-	-	-	-	-	-	-
<i>Encephalitozoon cuniculi</i>	-	-	-	-	-	-	-	-	-
Ectromelia	-	-	-	-	-	-	-	-	-
EDIM	-	-	-	-	-	-	-	-	-
LCMV	-	-	-	-	-	-	-	-	-
LDEV	-	-	-	-	-	-	-	-	-
<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

	113-D
CAR bacillus	-
<i>Encephalitozoon cuniculi</i>	-
Ectromelia	-
EDIM	-
LCMV	-
LDEV	-
<i>Mycoplasma pulmonis</i>	-
MAV1	-
MAV2	-
MCMV	-
MHV	-

	113-D
MNV	-
MPV	-
MVM	-
Polyoma	-
PVM	-
REO3	-
TMEV	-
Sendai	-
<i>Clostridium piliforme</i>	-
Mouse IgG	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	116-E	116-F	113-A	113-B	113-C
<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>	-	-	-	-	-	-	-	-	-

feces	113-D
<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	116-E	116-F	113-A	113-B	113-C
<i>Mycoplasma pulmonis</i>	-	-	-	-	-	-	-	-	-

oral swab	113-D
<i>Mycoplasma pulmonis</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 Testing in progress

PARASITOLOGY

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

	113-D
parasites	-

MICROBIOLOGY

Specimen/Source: cecum

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

Specimen/Source: cecum

Isolate	113-D
<i>Citrobacter rodentium</i>	-
<i>Klebsiella oxytoca</i>	-
<i>Klebsiella pneumoniae</i>	-
<i>Salmonella enterica</i>	-

Specimen/Source: nasopharynx

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

Specimen/Source: nasopharynx

Isolate	113-D
<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

FINAL REPORT OF LABORATORY EXAMINATION

4011 Discovery Drive, Columbia, MO 65201

1-800-669-0825 1-573-499-5700

idxxbioanalytics@idexx.com

www.idexxbioanalytics.com

IDEXX BioAnalytics Case # 26931-2018

Received: 9/18/2018

Completed: 9/26/2018

SEROLOGY DETAILS

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

	Baseline	116-A	116-B	116-C	116-D	116-E	116-F	113-A	113-B	113-C
MNV VP1 recombinant	MFI > 4.000	-	-	-	-	-	-	-	-	-
MPV										
MPV VP2 recombinant	MFI > 2.000	-	-	-	-	-	-	-	-	-
NS1 ¹	MFI > 3.750	-	-	-	-	-	-	-	-	-
MVM										
MVM VP2 recombinant	MFI > 2.000	-	-	-	-	-	-	-	-	-
NS1 ¹	MFI > 3.750	-	-	-	-	-	-	-	-	-
Polyoma										
Polyoma purified virus	MFI > 3.750	-	-	-	-	-	-	-	-	-
PVM										
PVM purified virus	MFI > 2.500	-	-	-	-	-	-	-	-	-
REO3										
REO3 purified virus	MFI > 4.900	-	-	-	-	-	-	-	-	-
TMEV										
TMEV purified virus	MFI > 2.250	-	-	-	-	-	-	-	-	-
RTV purified virus	MFI > 2.750	-	-	-	-	-	-	-	-	-
Sendai										
Sendai purified virus	MFI > 3.750	-	-	-	-	-	-	-	-	-
<i>Clostridium piliforme</i>										
<i>Clostridium piliforme</i> purified bacteria	MFI > 4.950	-	-	-	-	-	-	-	-	-

	Baseline	113-D
CAR bacillus		
CAR bacillus purified bacteria	MFI > 3.750	-
<i>Encephalitozoon cuniculi</i>		
<i>E. cuniculi</i> purified antigen	MFI > 1.200	-
Ectromelia		
Ectromelia purified virus	MFI > 2.000	-
EDIM		
EDIM purified virus	MFI > 4.000	-
EDIM VP6 recombinant	MFI > 2.500	-
LCMV		
LCMV recombinant	MFI > 3.000	-
LDEV		
LDEV	MFI > 4.500	-
<i>Mycoplasma pulmonis</i>		
<i>M. pulmonis</i> purified bacteria	MFI > 4.250	-
MAV1		

	Baseline	113-D
MAV1 purified virus	MFI > 3.750	-
MAV2		
MAV2 purified virus	MFI > 4.500	-
MCMV		
MCMV purified virus	MFI > 3.500	-
MHV		
MHV purified virus	MFI > 2.500	-
MHV NC recombinant	MFI > 2.500	-
MNV		
MNV purified virus	MFI > 3.000	-
MNV VP1 recombinant	MFI > 4.000	-
MPV		
MPV VP2 recombinant	MFI > 2.000	-
NS1 ¹	MFI > 3.750	-
MVM		
MVM VP2 recombinant	MFI > 2.000	-
NS1 ¹	MFI > 3.750	-
Polyoma		
Polyoma purified virus	MFI > 3.750	-
PVM		
PVM purified virus	MFI > 2.500	-
REO3		
REO3 purified virus	MFI > 4.900	-
TMEV		
TMEV purified virus	MFI > 2.250	-
RTV purified virus	MFI > 2.750	-
Sendai		
Sendai purified virus	MFI > 3.750	-
<i>Clostridium piliforme</i>		
<i>Clostridium piliforme</i> purified bacteria	MFI > 4.950	-

NS1¹: 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.

FINAL REPORT OF LABORATORY EXAMINATION

4011 Discovery Drive, Columbia, MO 65201

1-800-669-0825 1-573-499-5700

idxxbioanalytics@idexx.com

www.idexxbioanalytics.com

IDEXX BioAnalytics Case # 27170-2018

Received: 9/19/2018

Completed: 9/20/2018

Submitted By

Resource Center Animals-MMRRC
 University of Missouri-RCA-MMRRC
 Columbia, MO 65201

Phone: 573-884-7970
 Email: jfedor@mail.missouri.edu;
watermanjd@missouri.edu; dixonl@missouri.edu;
oneilla@missouri.edu; oconnore@missouri.edu;
mcdowellm@missouri.edu; RhoadesJN@missouri.edu;
hensone@missouri.edu

Referred By

Craig Franklin
 University of Missouri-Franklin
 Veterinary Pathobiology
 4011 Discovery Drive
 Columbia, MO 65201

Fax: [573] 884=7521
 Email: FranklinC@missouri.edu

Specimen Description

Species: mouse
 Description: 1 mouse fur mite swabs
 Number of Specimens/Animals: 2
 Building/Facility: Discivery Ridge
 Area: W113, W116

ID	Client ID	Investigator	Room #
1	1 Mouse Fur Mite Swab	Bryda	W116
2	1 Mouse Fure Mite Swab	Bryda	W113

Services/Tests Performed: Fur Mite

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

General Comments: Quarterly Fur Mite testing. AO

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 Testing in progress