

IDEXX RADIL™**FINAL REPORT OF LABORATORY EXAMINATION**

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idx-radil@idexx.comwww.idexxradil.com**CASE NUMBER: 9108-2013****RECEIVED ON: 3/11/2013****COMPLETED ON: 3/26/2013****SUBMITTED BY:**

Sentinels
 University of Missouri-RCA
 Columbia, MO 65201
 United States
 573-884-7970

SPECIMEN DESCRIPTION:**SPECIES:** mouse**DESCRIPTION:** Live Mice**NUMBER OF SPECIMENS:** 20**BUILDING/FACILITY:** W113

<u>ID</u>	<u>Investigator</u>	<u>Room #</u>	<u>Strain</u>	<u>Sex</u>	<u>Age</u>	<u>Rack</u>	<u>Date Placed</u>
1	Bryda	W113	CD-1	F	Adults	1A	12/17/2012
2			CD-1			1A	
3			CD-1			1B	
4			CD-1			1B	
5			CD-1			3A	
6			CD-1			3A	
7			CD-1			3B	
8			CD-1			3B	
9			CD-1			4A	
10			CD-1			4A	
11			CD-1			4B	
12			CD-1			4B	
13			CD-1			5A	
14			CD-1			5A	
15			CD-1			5B	
16			CD-1			5B	
17			CD-1			6A	
18			CD-1			6A	
19			CD-1			6B	
20			CD-1			6B	

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SERVICES/TESTS PERFORMED Rederivation Necropsy Profile - mouse

Serologic evaluation for antibodies to: *Clostridium piliforme*, *Mycoplasma pulmonis*, CAR bacillus, Ectromelia, EDIM, LCMV, LDEV, MAD1, MAD2, MCMV, MHV, MNV, MPV, MVM, Polyoma, PVM, REO3, Sendai, TMEV, *Encephalitozoon cuniculi*

PCR evaluation for: *Helicobacter bilis*, *Helicobacter ganmani*, *Helicobacter hepaticus*, *Helicobacter rodentium*, *Helicobacter sp.*, *Helicobacter trogontum*, *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*, *Salmonella enterica*, *Streptococcus pneumoniae*

GENERAL COMMENTS: CB: Sentinels placed 12/17/2012 for W113

SUMMARY: No conclusive evidence of serious, naturally occurring infectious disease was found.

If you have questions, please call our toll free number at 1-800-669-0825 or e-mail us at idx-radil@idexx.com.

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NECROPSY:

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

SEROLOGY:**MFI² Serology Summary Report:**

Date: 3/18/2013	1	2	3	4	5	6	7	8	9	10
CAR bacillus	-	-	-	-	-	-	-	-	-	-
<i>Encephalitozoon cuniculi</i>	-	-	-	-	-	-	-	-	-	-
Ectromelia	-	-	-	-	-	-	-	-	-	-
EDIM	-	-	-	-	-	-	-	-	-	-
LCMV	-	-	-	-	-	-	-	-	-	-
LDEV	-	-	-	-	-	-	-	-	-	-
<i>Mycoplasma pulmonis</i>	-	-	-	-	-	-	-	-	-	-
MAD1	-	-	-	-	-	-	-	-	-	-
MAD2	-	-	-	-	-	-	-	-	-	-
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	N

	11	12	13	14	15	16	17	18	19	20
CAR bacillus	-	-	-	-	-	-	-	-	-	-
<i>Encephalitozoon cuniculi</i>	-	-	-	-	-	-	-	-	-	-
Ectromelia	-	-	-	-	-	-	-	-	-	-
EDIM	-	-	-	-	-	-	-	-	-	-
LCMV	-	-	-	-	-	-	-	-	-	-
LDEV	-	-	-	-	-	-	-	-	-	-
<i>Mycoplasma pulmonis</i>	-	-	-	-	-	-	-	-	-	-
MAD1	-	-	-	-	-	-	-	-	-	-
MAD2	-	-	-	-	-	-	-	-	-	-
MCMV	-	-	-	-	-	-	-	-	-	-

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Serology (continued)

	11	12	13	14	15	16	17	18	19	20
MHV	-	-	-	-	-	-	-	-	-	-
MNV	-	-	-	-	-	-	-	-	-	-
MPV	-	-	-	-	-	-	-	-	-	-
MVM	-	-	-	-	-	-	-	-	-	-
Polyoma	-	-	-	-	-	-	-	-	-	-
PVM	-	-	-	-	-	-	-	-	-	-
REO3	-	-	-	-	-	-	-	-	-	-
TMEV	-	-	-	-	-	-	-	-	-	-
Sendai	-	-	-	-	-	-	-	-	-	-
<i>Clostridium piliforme</i>	-	-	-	-	-	-	-	-	-	-
Mouse IgG	N	N	N	N	N	N	N	N	N	N

Serology Detail Report:

1 2 3 4 5 6 7 8 9 10

CAR bacillus

CAR bacillus purified bacteria

MFI (> 3.750)

- - - - - - - - - -

Encephalitozoon cuniculi*E. cuniculi* purified protozoa

MFI (> 0.900)

- - - - - - - - - -

Ectromelia

Ectromelia purified virus

MFI (> 0.900)

- - - - - - - - - -

EDIM

EDIM purified virus

MFI (> 4.900)

- - - - - - - - - -

EDIM VP6 recombinant

MFI (> 4.310)

- - - - - - - - - -

LCMV

LCMV purified virus

MFI (> 0.800)

- - - - - - - - - -

LDEV

LDEV

MFI (> 3.750)

- - - - - - - - - -

Mycoplasma pulmonis*M. pulmonis* purified bacteria

MFI (> 2.750)

- - - - - - - - - -

MAD1

MAD1 purified virus

MFI (> 2.550)

- - - - - - - - - -

MAD2

MAD2 purified virus

MFI (> 3.950)

- - - - - - - - - -

MCMV

MCMV purified virus

MFI (> 1.650)

- - - - - - - - - -

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Serology (continued)

		1	2	3	4	5	6	7	8	9	10									
MHV																				
MHV purified virus	MFI (> 4.050)	-	-	-	-	-	-	-	-	-	-									
MHV NC recombinant	MFI (> 4.950)	-	-	-	-	-	-	-	-	-	-									
MNV																				
MNV purified virus	MFI (> 2.000)	-	-	-	-	-	-	-	-	-	-									
MNV VP1 recombinant	MFI (> 1.800)	-	-	-	-	-	-	-	-	-	-									
MPV																				
MPV VP2 recombinant	MFI (> 2.750)	-	-	-	-	-	-	-	-	-	-									
NS1 ¹	MFI (> 3.000)	-	-	-	-	-	-	-	-	-	-									
MVM																				
MVM VP2 recombinant	MFI (> 0.900)	-	-	-	-	-	-	-	-	-	-									
NS1 ¹	MFI (> 3.000)	-	-	-	-	-	-	-	-	-	-									
Polyoma																				
Polyoma purified virus	MFI (> 3.500)	-	-	-	-	-	-	-	-	-	-									
PVM																				
PVM purified virus	MFI (> 1.500)	-	-	-	-	-	-	-	-	-	-									
REO3																				
REO3 purified virus	MFI (> 4.900)	-	-	-	-	-	-	-	-	-	-									
TMEV																				
TMEV purified virus	MFI (> 2.250)	-	-	-	-	-	-	-	-	-	-									
RTV purified virus	MFI (> 2.300)	-	-	-	-	-	-	-	-	-	-									
Sendai																				
Sendai purified virus	MFI (> 2.800)	-	-	-	-	-	-	-	-	-	-									
<i>Clostridium piliforme</i>																				
<i>Clostridium piliforme</i> purified bacteria	MFI (> 4.950)	-	-	-	-	-	-	-	-	-	-									
		11	12	13	14	15	16	17	18	19	20									
CAR bacillus																				
CAR bacillus purified bacteria	MFI (> 3.750)	-	-	-	-	-	-	-	-	-	-									
<i>Encephalitozoon cuniculi</i>																				
<i>E. cuniculi</i> purified protozoa	MFI (> 0.900)	-	-	-	-	-	-	-	-	-	-									
Ectromelia																				
Ectromelia purified virus	MFI (> 0.900)	-	-	-	-	-	-	-	-	-	-									
EDIM																				
EDIM purified virus	MFI (> 4.900)	-	-	-	-	-	-	-	-	-	-									
EDIM VP6 recombinant	MFI (> 4.310)	-	-	-	-	-	-	-	-	-	-									

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Serology (continued)

		11	12	13	14	15	16	17	18	19	20
LCMV											
LCMV purified virus	MFI (> 0.800)	-	-	-	-	-	-	-	-	-	-
LDEV											
LDEV	MFI (> 3.750)	-	-	-	-	-	-	-	-	-	-
<i>Mycoplasma pulmonis</i>											
<i>M. pulmonis</i> purified bacteria	MFI (> 2.750)	-	-	-	-	-	-	-	-	-	-
MAD1											
MAD1 purified virus	MFI (> 2.550)	-	-	-	-	-	-	-	-	-	-
MAD2											
MAD2 purified virus	MFI (> 3.950)	-	-	-	-	-	-	-	-	-	-
MCMV											
MCMV purified virus	MFI (> 1.650)	-	-	-	-	-	-	-	-	-	-
MHV											
MHV purified virus	MFI (> 4.050)	-	-	-	-	-	-	-	-	-	-
MHV NC recombinant	MFI (> 4.950)	-	-	-	-	-	-	-	-	-	-
MNV											
MNV purified virus	MFI (> 2.000)	-	-	-	-	-	-	-	-	-	-
MNV VP1 recombinant	MFI (> 1.800)	-	-	-	-	-	-	-	-	-	-
MPV											
MPV VP2 recombinant	MFI (> 2.750)	-	-	-	-	-	-	-	-	-	-
NS1 ¹	MFI (> 3.000)	-	-	-	-	-	-	-	-	-	-
MVM											
MVM VP2 recombinant	MFI (> 0.900)	-	-	-	-	-	-	-	-	-	-
NS1 ¹	MFI (> 3.000)	-	-	-	-	-	-	-	-	-	-
Polyoma											
Polyoma purified virus	MFI (> 3.500)	-	-	-	-	-	-	-	-	-	-
PVM											
PVM purified virus	MFI (> 1.500)	-	-	-	-	-	-	-	-	-	-
REO3											
REO3 purified virus	MFI (> 4.900)	-	-	-	-	-	-	-	-	-	-
TMEV											
TMEV purified virus	MFI (> 2.250)	-	-	-	-	-	-	-	-	-	-
RTV purified virus	MFI (> 2.300)	-	-	-	-	-	-	-	-	-	-
Sendai											
Sendai purified virus	MFI (> 2.800)	-	-	-	-	-	-	-	-	-	-
<i>Clostridium piliforme</i>											
<i>Clostridium piliforme</i> purified bacteria	MFI (> 4.950)	-	-	-	-	-	-	-	-	-	-

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Serology (continued)

NS1¹ = NS1 protein is highly conserved among rodent parvoviruses and thus serves as a generic assay for parvovirus seroconversion.

(LEGEND: * = borderline + = positive - = negative blank = test not performed EQ = equivocal HE = hemolysis precluded testing I = insufficient L = less than 10% normal IgG N = normal IgG NS = non-specific reactivity W = weak positive WB = Western Blot confirmatory analysis pending)

Positive MFI results are reported as "+" followed by a number from 1 to 33 in thousands rounded off to the nearest thousand.

PCR EVALUATION:

Specimen: feces	1	2	3	4	5	6	7	8	9	10
<i>Helicobacter bilis</i>	-	-	-	-	-	-	-	-	-	-
<i>Helicobacter ganmani</i>	-	-	-	-	-	-	-	-	-	-
<i>Helicobacter hepaticus</i>	-	-	-	-	-	-	-	-	-	-
<i>Helicobacter rodentium</i>	-	-	-	-	-	-	-	-	-	-
<i>Helicobacter trogonum</i>	-	-	-	-	-	-	-	-	-	-
<i>Helicobacter typhlonius</i>	-	-	-	-	-	-	-	-	-	-
<i>Helicobacter sp.</i>	-	-	-	-	-	-	-	-	-	-
	11	12	13	14	15	16	17	18	19	20
<i>Helicobacter bilis</i>	-	-	-	-	-	-	-	-	-	-
<i>Helicobacter ganmani</i>	-	-	-	-	-	-	-	-	-	-
<i>Helicobacter hepaticus</i>	-	-	-	-	-	-	-	-	-	-
<i>Helicobacter rodentium</i>	-	-	-	-	-	-	-	-	-	-
<i>Helicobacter trogonum</i>	-	-	-	-	-	-	-	-	-	-
<i>Helicobacter typhlonius</i>	-	-	-	-	-	-	-	-	-	-
<i>Helicobacter sp.</i>	-	-	-	-	-	-	-	-	-	-
Specimen: nasopharyngeal swab	1	2	3	4	5	6	7	8	9	10
<i>Mycoplasma pulmonis</i>	-	-	-	-	-	-	-	-	-	-
	11	12	13	14	15	16	17	18	19	20
<i>Mycoplasma pulmonis</i>	-	-	-	-	-	-	-	-	-	-

(LEGEND: + = positive - = negative id:id = pooled sample blank = test not performed equ = equivocal NT or blank = no test performed sus = suspect wps = weak positive)

All samples are first tested using a generic *Helicobacter* PCR assay that detects all bacteria in the *Helicobacter* genus. Samples testing negative on this assay are reported negative for all

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PCR (continued)

helicobacters. Samples testing positive on the generic assay are subsequently tested with PCR assays specific for *H. bilis*, *H. ganmani*, *H. hepaticus*, *H. rodentium*, *H. trogontum* and *H. typhlonius* and positive results are reported. If the sample is positive on the generic *Helicobacter* assay, but negative on the six *Helicobacter* species-specific assays, the sample is reported positive for *Helicobacter* sp.

PARASITOLOGY:

	1	2	3	4	5	6	7	8	9	10
parasites	-	-	-	-	-	-	-	-	-	-
	11	12	13	14	15	16	17	18	19	20
parasites	-	-	-	-	-	-	-	-	-	-

MICROBIOLOGY:

cecum				1	2	3	4	5	6	7	8	9	10
<i>Citrobacter rodentium</i>				-	-	-	-	-	-	-	-	-	-
<i>Klebsiella oxytoca</i>				-	-	-	-	-	-	-	-	-	-
<i>Klebsiella pneumoniae</i>				-	-	-	-	-	-	-	-	-	-
<i>Salmonella enterica</i>				-	-	-	-	-	-	-	-	-	-
				11	12	13	14	15	16	17	18	19	20
<i>Citrobacter rodentium</i>				-	-	-	-	-	-	-	-	-	-
<i>Klebsiella oxytoca</i>				-	-	-	-	-	-	-	-	-	-
<i>Klebsiella pneumoniae</i>				-	-	-	-	-	-	-	-	-	-
<i>Salmonella enterica</i>				-	-	-	-	-	-	-	-	-	-
nasopharynx				1	2	3	4	5	6	7	8	9	10
<i>Corynebacterium kutscheri</i>				-	-	-	-	-	-	-	-	-	-
<i>Pasteurella multocida</i>				-	-	-	-	-	-	-	-	-	-
<i>Pasteurella pneumotropica</i>				-	-	-	-	-	-	-	-	-	-
<i>Streptococcus pneumoniae</i>				-	-	-	-	-	-	-	-	-	-
				11	12	13	14	15	16	17	18	19	20
<i>Corynebacterium kutscheri</i>				-	-	-	-	-	-	p	-	-	p
<i>Pasteurella multocida</i>				-	-	-	-	-	-	p	-	-	p
<i>Pasteurella pneumotropica</i>				-	-	-	-	-	-	p	-	-	p
<i>Streptococcus pneumoniae</i>				-	-	-	-	-	-	p	-	-	p

(LEGEND: + = agent recovered - = agent not recovered blank = test not performed n = no growth p = Proteus overgrowth, which may interfere with the identification of other bacteria)