IDEXX RADIL™

FINAL REPORT OF LABORATORY EXAMINATION
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CASE NUMBER: 13885-2013

RECEIVED ON: 6/4/2013
COMPLETED ON: 6/13/2013

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

ID	Investigator	Room #	Strain	Sex	Age	Rack
1	Bryda	W113	CD-1	F	Adults	2A
2			CD-1			2A
3			CD-1			2B
4			CD-1			2B
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

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* 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*, *Salmonella enterica*, *Streptococcus pneumoniae*

GENERAL COMMENTS: CB: Sentinel mice placed in room on 3/19/2013.

SUMMARY: All test results were negative.

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

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

MFI[2] Serology Summary Report:

Date: 6/7/2013	1	2	3	4	5	6	7	8	9	10
CAR bacillus	-	-	-	-	-	-	-	-	-	-
Encephalitozoon cuniculi	-	-	-	-	-	-	-	-	-	-
Ectromelia	-	-	-	-	-	-	-	-	-	-
EDIM	-	-	-	-	-	-	-	-	-	-
LCMV	-	-	-	-	-	-	-	-	-	-
LDEV	-	-	-	-	-	-	-	-	-	-
Mycoplasma pulmonis	-	-	-	-	-	-	-	-	-	-
MAD1	-	-	-	-	-	-	-	-	-	-
MAD2	-	-	-	-	-	-	-	-	-	-
MCMV	-	-	-	-	-	-	-	-	-	-
MHV	-	-	-	-	-	-	-	-	-	-
MNV	-	-	-	-	-	-	-	-	-	-
MPV	-	-	-	-	-	-	-	-	-	-
MVM	-	-	-	-	-	-	-	-	-	-
Polyoma	-	-	-	-	-	-	-	-	-	-
PVM	-	-	-	-	-	-	-	-	-	-
REO3	-	-	-	-	-	-	-	-	-	-
TMEV	-	-	-	-	-	-	-	-	-	-
Sendai	-	-	-	-	-	-	-	-	-	-
Clostridium piliforme	-	-	-	-	-	-	-	-	-	-
Mouse IgG	N	N	N	N	N	N	N	N	N	N

	11	12	13	14	15	16	17	18	19	20
CAR bacillus	-	-	-	-	-	-	-	-	-	-
Encephalitozoon cuniculi	-	-	-	-	-	-	-	-	-	-
Ectromelia	-	-	-	-	-	-	-	-	-	-
EDIM	-	-	-	-	-	-	-	-	-	-
LCMV	-	-	-	-	-	-	-	-	-	-
LDEV	-	-	-	-	-	-	-	-	-	-
Mycoplasma pulmonis	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-
Clostridium piliforme	-	-	-	-	-	-	-	-	-	-
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)	-	-	+3	-	-	-	-	-	-	-
LCMV virus	IFA			-							
LDEV											
LDEV	MFI (> 3.750)	-	-	-	-	-	-	-	-	-	-
Mycoplasma pulmonis											
M. pulmonis purified bacteria	MFI (> 2.750)	-	-	-	-	-	-	-	-	-	-
MAD1											
MAD1 purified virus	MFI (> 2.550)	-	-	+18	-	-	-	-	-	-	-
MAD1 virus	IFA			-							
MAD2											
MAD2 purified virus	MFI (> 3.950)	-	-	+14	-	-	-	-	-	-	-
MAD2 virus	IFA			-							

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Serology (continued)

		1	2	3	4	5	6	7	8	9	10
MCMV											
MCMV purified virus	MFI (> 1.650)	-	-	+3	-	-	-	-	-	-	-
MCMV virus	IFA			-							
MHV											
MHV purified virus	MFI (> 4.050)	-	-	-	-	-	-	-	-	-	-
MHV NC recombinant	MFI (> 4.950)	-	-	EQ	-	-	-	-	-	-	-
MHV virus	IFA			-							
MNV											
MNV purified virus	MFI (> 1.500)	-	-	-	-	-	-	-	-	-	-
MNV VP1 recombinant	MFI (> 3.250)	-	-	-	-	-	-	-	-	-	-
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)	-	-	-	-	-	-	-	-	-	-
Clostridium piliforme											
Clostridium piliforme purified bacteria	MFI (> 4.950)	-	-	-	-	-	-	-	-	-	-

		11	12	13	14	15	16	17	18	19	20
CAR bacillus											
CAR bacillus purified bacteria	MFI (> 3.750)	-	-	-	-	-	-	-	-	-	-
Encephalitozoon cuniculi											
E. cuniculi purified protozoa	MFI (> 0.900)	-	-	-	-	-	-	-	-	-	-

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Serology (continued)

		11	12	13	14	15	16	17	18	19	20
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)	-	-	-	-	-	-	-	-	-	-
LCMV virus	IFA										
LDEV											
LDEV	MFI (> 3.750)	-	-	-	-	-	-	-	-	-	-
Mycoplasma pulmonis											
M. pulmonis purified bacteria	MFI (> 2.750)	-	-	-	-	-	-	-	-	-	-
MAD1											
MAD1 purified virus	MFI (> 2.550)	-	-	-	-	-	-	-	-	-	-
MAD1 virus	IFA										
MAD2											
MAD2 purified virus	MFI (> 3.950)	-	-	-	-	-	-	-	-	-	-
MAD2 virus	IFA										
MCMV											
MCMV purified virus	MFI (> 1.650)	-	-	-	-	-	-	-	-	-	-
MCMV virus	IFA										
MHV											
MHV purified virus	MFI (> 4.050)	-	-	-	-	-	-	-	-	-	-
MHV NC recombinant	MFI (> 4.950)	-	-	-	-	-	-	-	-	-	-
MHV virus	IFA										
MNV											
MNV purified virus	MFI (> 1.500)	-	-	-	-	-	-	-	-	-	-
MNV VP1 recombinant	MFI (> 3.250)	-	-	-	-	-	-	-	-	-	-
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)	-	-	-	-	-	-	-	-	-	-

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Serology (continued)

		11	12	13	14	15	16	17	18	19	20
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)	-	-	-	-	-	-	-	-	-	-
Clostridium piliforme											
Clostridium piliforme purified bacteria	MFI (> 4.950)	-	-	-	-	-	-	-	-	-	-

NS1[1] = 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
Helicobacter spp.	-	-	-	-	-	-	-	-	-	-
Helicobacter bilis	-	-	-	-	-	-	-	-	-	-
Helicobacter ganmani	-	-	-	-	-	-	-	-	-	-
Helicobacter hepaticus	-	-	-	-	-	-	-	-	-	-
Helicobacter rodentium	-	-	-	-	-	-	-	-	-	-
Helicobacter typhlonius	-	-	-	-	-	-	-	-	-	-

	11	12	13	14	15	16	17	18	19	20
Helicobacter spp.	-	-	-	-	-	-	-	-	-	-
Helicobacter bilis	-	-	-	-	-	-	-	-	-	-
Helicobacter ganmani	-	-	-	-	-	-	-	-	-	-
Helicobacter hepaticus	-	-	-	-	-	-	-	-	-	-
Helicobacter rodentium	-	-	-	-	-	-	-	-	-	-
Helicobacter typhlonius	-	-	-	-	-	-	-	-	-	-

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PCR (continued)

Specimen: nasopharyngeal swab	1	2	3	4	5	6	7	8	9	10
Mycoplasma pulmonis	-	-	-	-	-	-	-	-	-	-

	11	12	13	14	15	16	17	18	19	20
Mycoplasma pulmonis	-	-	-	-	-	-	-	-	-	-

(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 by the *Helicobacter* spp. PCR assay; a generic *Helicobacter* PCR assay that detects all bacteria in the *Helicobacter* genus. Samples testing negative on this assay are reported negative for *Helicobacter* spp. and all species-specific helicobacters. Samples testing positive on the *Helicobacter* spp. assay are subsequently retested on the *Helicobacter* spp. assay and tested with PCR assays specific for *H. bilis, H. ganmani, H. hepaticus, H. rodentium* and *H. typhlonius* and positive results are reported.

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
Citrobacter rodentium	-	-	-	-	-	-	-	-	-	-
Klebsiella oxytoca	-	-	-	-	-	-	-	-	-	-
Klebsiella pneumoniae	-	-	-	-	-	-	-	-	-	-
Salmonella enterica	-	-	-	-	-	-	-	-	-	-

	11	12	13	14	15	16	17	18	19	20
Citrobacter rodentium	-	-	-	-	-	-	-	-	-	-
Klebsiella oxytoca	-	-	-	-	-	-	-	-	-	-
Klebsiella pneumoniae	-	-	-	-	-	-	-	-	-	-
Salmonella enterica	-	-	-	-	-	-	-	-	-	-

nasopharynx	1	2	3	4	5	6	7	8	9	10
Corynebacterium kutscheri	-	-	-	-	-	-	-	p	-	-
Pasteurella multocida	-	-	-	-	-	-	-	p	-	-
Pasteurella pneumotropica	-	-	-	-	-	-	-	p	-	-
Streptococcus pneumoniae	-	-	-	-	-	-	-	p	-	-

	11	12	13	14	15	16	17	18	19	20

Corynebacterium kutscheri	-	p	-	-	-	p	-	p	-	p

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Microbiology (continued)

nasopharynx	11	12	13	14	15	16	17	18	19	20
Pasteurella multocida	-	p	-	-	-	p	-	p	-	p
Pasteurella pneumotropica	-	p	-	-	-	p	-	p	-	p
Streptococcus pneumoniae	-	p	-	-	-	p	-	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)