

SUMMARY OF TEST OF DECEMBER 7, 1950

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN  
COW SERA RECEIVED FROM DR HUEBNER 11/6/50

SPECIMEN	MORTALITY AT INDICATED FINAL DILUTION OF SERUM VS. $50\text{PD}_{50}$ OF VIRUS				50% PROTECTIVE ENDPOINT
	2	8	32	128	
SERUM FROM COW # B18-R028 57751	6/8	8/8	8/8	8/8	< 2
SERUM FROM COW # B18-R031 57752	7/8	8/8	8/8	8/8	< 2
SERUM FROM COW # B18-R032 57753	7/8	7/8	8/8	8/8	< 2
SERUM FROM COW # B18-R034 57754	7/8	7/8	8/8	8/8	< 2

CONTROL  
VIRUS 1:50 13/13

QUANTITATIVE TEST FOR LANSING ANTIBODIES IN  
COW SERA RECEIVED FROM DR. HUERNER 11/6/50

PURPOSE: To determine the titer of activity of the antiviral factor in cow sera against 50 PD<sub>50</sub> of virus. These sera were previously shown to be active against Lansing virus in a screen test.

VIRUS: [REDACTED] virus: Pool II of 6/6/50. 10% suspension in  
Centrifuged 10 minutes at 2000 rpm to  
remove flocculant ppt.

PROCEDURE: The sera were diluted serially in four-fold dilutions undiluted, 1:4, 1:16, 1:64. To 0.2 ml of each dilution 0.2 ml of 50 PD<sub>50</sub> of Lansing virus was added (so that the final dilution of virus was 1:50). Recent titrations have shown 6 D<sub>50</sub> of this virus to be  $10^{-3.4}$  rather than the previous  $10^{-4.0}$ . Final dilution of specimens were 1:2, 1:8, 1:32, 1:128. Mixtures were shaken and incubated at room temperature for 1 hour. Tubes were placed in an ice bath during inoculation.

MICE: PRI 18-20 grams ♀ + ♂ 8 per dilution

CODE	SPECIMEN	1:2	1:8	1:32	1:128
A	SERUM FROM COW # B18 - R0 28 57751	6/8	8/8	8/8	8/8
B	SERUM FROM COW # B18 - R0 31 57752	7/8	8/8	8/8	8/8
C	SERUM FROM COW # B18 - R0 32 57753	7/8	7/8	8/8	8/8
D	SERUM FROM COW # B18 - R0 34 57754	7/8	7/8	8/8	8/8
E	CONTROL VIRUS 1:50	13/13			

SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 MORTALITY 6D50

A

SERUM FROM COW #818-R028 57751

+



1:50

<1:2

6/8

8/8

8/8

8/8

1 - CAS D  
2 - ? D  
3 - ? D  
4 - ? D  
5 - ? D  
6 - ? D  
7 - ? D  
8 - ? D  
9 - ? D  
10 - ? D  
11 - ? D  
12 - ? D  
13 - ? D  
14 - ? D  
15 - ? D  
16 - ? D  
17 - ? D  
18 - ? D  
19 - ? D  
20 - ? D  
21 - ? D  
22 - ? D  
23 - ? D  
24 - ? D  
25 - ? D  
26 - ? D  
27 - ? D  
28 - ? D  
29 - ? D  
30 - ? D  
31 - ? D  
32 - ? D  
33 - ? D  
34 - ? D  
35 - ? D

1 - CAS D  
2 - ? D  
3 - ? D  
4 - ? D  
5 - ? D  
6 - ? D  
7 - ? D  
8 - ? D

1 - CAS D  
2 - ? D  
3 - ? D  
4 - ? D  
5 - ? D  
6 - ? D  
7 - ? D  
8 - ? D

1 - CAS D  
2 - ? D  
3 - ? D  
4 - ? D  
5 - ? D  
6 - ? D  
7 - ? D  
8 - ? D

1 - CAS D  
2 - ? D  
3 - ? D  
4 - ? D  
5 - ? D  
6 - ? D  
7 - ? D  
8 - ? D

A

SERUM FROM COW #818-R028 57751

+



1:50

<1:2

6/8

8/8

8/8

8/8

1 - CAS D  
2 - ? D  
3 - ? D  
4 - ? D  
5 - ? D  
6 - ? D  
7 - ? D  
8 - ? D  
9 - ? D  
10 - ? D  
11 - ? D  
12 - ? D  
13 - ? D  
14 - ? D  
15 - ? D  
16 - ? D  
17 - ? D  
18 - ? D  
19 - ? D  
20 - ? D  
21 - ? D  
22 - ? D  
23 - ? D  
24 - ? D  
25 - ? D  
26 - ? D  
27 - ? D  
28 - ? D  
29 - ? D  
30 - ? D  
31 - ? D  
32 - ? D  
33 - ? D  
34 - ? D  
35 - ? D

1 - CAS D  
2 - ? D  
3 - ? D  
4 - ? D  
5 - ? D  
6 - ? D  
7 - ? D  
8 - ? D

1 - CAS D  
2 - ? D  
3 - ? D  
4 - ? D  
5 - ? D  
6 - ? D  
7 - ? D  
8 - ? D

1 - CAS D  
2 - ? D  
3 - ? D  
4 - ? D  
5 - ? D  
6 - ? D  
7 - ? D  
8 - ? D

1 - CAS D  
2 - ? D  
3 - ? D  
4 - ? D  
5 - ? D  
6 - ? D  
7 - ? D  
8 - ? D



DEC 7 1950

MORTALITY L.D. 60

SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

SPECIMEN

C

SERUM FROM COW # B18-R0 32 57753

+

[Redacted]

1:56

7/8 < 1:2

7/8

8/8

8/8

1 P  
2 ?  
3 ? PRD  
4 ? D  
5 PR PRD  
6 -  
7 -  
8 -

1 - cas D  
2 - cas D  
3 ? PRD  
4 ? PR cas D  
5 - ?  
6 -  
7 -  
8 -

1 D  
2 ?  
3 ?  
4 P D  
5 ?  
6 -  
7 -  
8 -

1 D  
2 - D  
3 - D  
4 P  
5 ?  
6 -  
7 -  
8 -

PR PR D

P D

D ? P D

D

?

SPECIMEN SERUM No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 MORTALITY L.D.50

D

< 1:2

7/8

SERUM FROM COW #B18-R034 57754

+

7/8

8/8

8/8

Serum No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
1:2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
1:8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
1:32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
1:128	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35



DEC 7 1950

MORTALITY L.D.50

SPECIMEN

VIRUS NO.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

F

CONTROL

SALINE

+

P

D

?

?

?

?

EPE D

- P D

- P D

- P D

1 - P

2 - ?

3 - ?

4 - ?

5 - ?

D

D

D

?

- P D

1:50

8/8

5/5



SUMMARY OF TEST OF DECEMBER 12, 1950

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN  
COW SERA RECEIVED FROM DR. HUEBNER 11/6/50

SPECIMEN	MORTALITY AT INDICATED FINAL DILUTION OF SERUM VS. 50% <sub>50</sub> OF VIRUS				50% PROTECTIVE ENDPOINT
	2	8	32	128	
SERUM FROM COW # B18-RO 35 57755	3/8	4/8	8/8	8/8	5
SERUM FROM COW # B18-RO 42 57756	5/8	7/8	8/8	8/8	< 2
SERUM FROM COW # B18-RO 45 57759	5/8	8/8	8/8	8/8	< 2
SERUM FROM COW # B18-RO 71 57762	6/8	7/8	8/8	7/8	< 2
SERUM FROM COW # B18-RO 76 57765	2/8	5/8	8/8	7/8	5
SERUM FROM COW # B18-RO 88 57773	5/8	7/8	8/8	8/8	< 2
SERUM FROM COW # AR 4 (68) 57731	6/8	6/8	7/8	8/8	< 2

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN  
COW SERA RECEIVED FROM DR. HUEBNER 11/6/50

DEC 12 1950

PURPOSE: To determine the titer of activity of the antiviral factor in cow sera against 50 PD<sub>50</sub> of virus. These sera were previously shown to be active against Lansing virus in a screen test.

VIRUS: [REDACTED] virus: Pool II of 6/6/50. 10% suspension in saline. Centrifuged 10 minutes at 2000 rpm to remove flocculant ppt.

PROCEDURE: The sera were diluted serially in four-fold dilutions - undiluted, 1:4, 1:16, 1:64. To 0.2 ml of each dilution 0.2 ml of 50 PD<sub>50</sub> of Lansing virus was added (so that the final dilution of virus was 1:50). Recent titrations have shown LD<sub>50</sub> of the virus to be 10<sup>-3.4</sup> rather than the previous 10<sup>-4.0</sup>. Final dilutions of specimens were 1:2, 1:8, 1:32, 1:128. Mixtures were shaken and incubated at room temperature for 1 hour. Tubes were placed in an ice bath during inoculation.

MICE: Maxfields 18-20 grams 8 per dilution

<u>CODE</u>	<u>SPECIMEN</u>	1:2	1:8	1:32	1:128
A	SERUM FROM COW # B18 - R035 57755	3/8	4/8	8/8	8/8
B	SERUM FROM COW # B18 - R042 57756	5/8	7/8	8/8	8/8
C	SERUM FROM COW # B18 - R045 57759	5/8	8/8	8/8	8/8
D	SERUM FROM COW # B18 - R071 57762	6/8	7/8	8/8	7/8
E	SERUM FROM COW # B18 - R076 57765	2/8	5/8	8/8	7/8
F	SERUM FROM COW # B18 - R088 57773	5/8	7/8	8/8	8/8
G	SERUM FROM COW # AR 4 (68) 59731	6/8	6/8	7/8	8/8
H	CONTROL (VIRUS 1:50)				

SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 MORTALITY L D 50

A

SERUM FROM COW #B18-RO35 57755

+



1:50

1	-	-	W <sup>W</sup> P <sup>P</sup> D																																		
2	-	-	W <sup>W</sup> P <sup>P</sup> D																																		
3	-	-	W <sup>W</sup> P <sup>P</sup> R																																		
1:2 4	-	-	?																																		
5	-	-	-																																		
6	-	-	-																																		
7	-	-	-																																		
8	-	-	-																																		

3/8 1:5

1	-	?	?	?																																	
2	-	-	-																																		
3	-	-	-																																		
1:8 4	-	-	-																																		
5	-	-	-																																		
6	-	-	-																																		
7	-	-	-																																		
8	-	-	-																																		

4/8

1	-	?	PP	D																																	
2	-	?	P	D																																	
3	-	-	-	?																																	
1:32 4	-	-	-																																		
5	-	-	-																																		
6	-	-	-																																		
7	-	-	-																																		
8	-	-	-																																		

8/8

1	-	PP	D																																		
2	-	PP	D																																		
3	-	PP	D																																		
1:28 4	-	P	PP	D																																	
5	-	-	P	D																																	
6	-	-	?	D																																	
7	-	-	?																																		
8	-	-	-																																		

8/8

SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

MORTALITY

LD50

B

SERUM FROM COW #B18-R042 57756

+

1:50

5/8 < 1:2

7/8

2/8

8/8

D

D

D

w

-

-

-

-

-

-

D

?

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

-

1:2

1:8

1:32

1:128

- E D

- P P P D  
- ? E E P P  
- ? ?

- w P P D  
- P P D  
- P P E D  
- ? P E D

- ? ? ? P P D

R D

EE









SPECIMEN	SERUM NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	MORTALITY	W.D.S.				
G	1	-	cus	D																																						
	2	-	ww	cus	D																																					
	3	-	cus	cus	D																																					
	1:2	4	-	?	cus	pp																																				
	5	-	-	?																																						
	6	-	-	-	?																																					
	7	-	-	-	-																																					
	8	-	-	-	-																																					
SERUM FROM COW #AR 4 (68) 59731	1	-	?	ww	cus	D																																				
	2	-	-	?	?																																					
	3	-	-	-	-																																					
	1:8	4	-	-	-																																					
	5	-	-	-	-																																					
	6	-	-	-	-																																					
	7	-	-	-	-																																					
	8	-	-	-	-																																					
+	1	-	pp	D																																						
	2	-	?	D																																						
	3	-	-	?	D																																					
	1:32	4	-	-	-	D																																				
	5	-	-	-	?																																					
	6	-	-	-	-																																					
	7	-	-	-	-																																					
	8	-	-	-	-																																					
1:50	1	-	pp	D																																						
	2	-	?	D																																						
	3	-	-	?	D																																					
	1:32	4	-	-	-	D																																				
	5	-	-	-	?																																					
	6	-	-	-	-																																					
	7	-	-	-	-																																					
	8	-	-	-	-																																					
1:28	1	-	pp	D																																						
	2	-	?	D																																						
	3	-	-	?	D																																					
	1:28	4	-	-	?																																					
	5	-	-	?																																						
	6	-	-	-	-																																					
	7	-	-	-	-																																					
	8	-	-	-	-																																					

6/8 < 1:2

6/8

7/8

8/8

SPECIMEN VIRUS NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 MORTALITY LD50

H

CONTROL

SALINE

+

15/16

7/8

8/8

Virus No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35			
H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CONTROL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SALINE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PPP D PPP D

SUMMARY OF TEST OF DECEMBER 15, 1950

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN COW  
SERA RECEIVED FROM DR. HUEBNER 11/6/50

SPECIMEN	MORTALITY AT INDICATED FINAL DILUTION OF SERUM VS. 50% <sub>50</sub> OF VIRUS				50% PROTECTIVE ENDPOINT
	2	8	32	128	
SERUM FROM COW #AR 8 (128) 59733	5/8	8/8	8/8	8/8	< 1:2
SERUM FROM COW #AR 72 (144) 59747	5/8	5/6	8/8	8/8	< 1:2
SERUM FROM COW #AR 102 (99) 59755	5/8	6/8	8/8	8/8	1:2
SERUM FROM COW #AR 139 (24)	3/6	4/8	4/8	8/8	1:9
SERUM FROM COW #AR 149 (19) 59766	5/8	7/8	8/8	8/8	< 1:2
SERUM FROM COW #AR 169 (359) 59775	4/8	5/8	6/8	7/8	1:5
CONTROL VIRUS 1:50		10/10			

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN COW SERA RECEIVED FROM DR. HUEBNER 11/6/50

PURPOSE: To determine the titer of activity of the antiviral factor in cow sera against 50 PD<sub>50</sub> of virus. These sera were previously shown to be active against Lansing virus in a screen test.

VIRUS: Lansing virus, Pool V of 6/6/50. 10% suspension in saline. Centrifuged 10 minutes at 2000 rpm to remove flocculant ppt.

PROCEDURE: The sera were diluted serially in four fold dilutions: undiluted 1:4, 1:16, 1:64. To 0.2 ml of each dilution 0.2 ml of 50 PD<sub>50</sub> of Lansing virus was added (so that the final dilution of virus was 1:50). Recent titrations have shown 4 PD<sub>50</sub> of the virus to be 10<sup>-3.4</sup> rather than the previous 10<sup>-4.0</sup>. Final dilutions of specimens were 1:2, 1:8, 1:32, 1:128. Mixtures were shaken and incubated at room temperature for 1 hour. Tubes were placed in an ice bath during inoculation.

MICE: Maxfields 18-20 grams 8 per dilution

CODE	SPECIMEN	1:2	1:8	1:32	1:128
A	SERUM FROM COW #AR 9 (128) 59733	5/8	8/8	8/8	8/8
B	SERUM FROM COW #AR 72 (141) 59747	5/8	5/6	8/8	8/8
C	SERUM FROM COW #AR 102 (99) 59755	5/8	6/8	8/8	8/8
D	SERUM FROM COW #AR 139 (24) 59765	3/6	4/8	4/8	8/8
E	SERUM FROM COW #AR 149 (19) 59766	5/8	7/8	8/8	8/8
F	SERUM FROM COW #AR 169 (359) 59775	4/8	5/8	6/8	7/8
G	CONTROL VIRUS 1:50	10/10			





DEC 15 1950

MORTALITY LPS

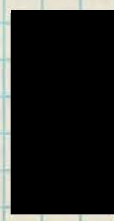
SERUM NO 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8

SPECIMEN

C

SERUM FROM COW #AR 102(99) 59755

+



1:50

1:2

5/8

6/8

8/8

8/8

D PRD

EE

D PRD ? D

? PRD

PRD ? D PRD

PRD EE D

PRD

D ? PRD PRD

EE D ? PRD

D PRD

PRD





SPECIMEN

SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

MORTALITY

LD50

F

1:2

1	-	CH <sub>2</sub> CH <sub>2</sub> ?	-	-	-	-	-	-	-	-	-	-	-	-	PP	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	.. ?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	?	?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	PP D
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

4/8

1:5

SERUM FROM COW #AR 169(359) 59775

1:8

1	-	-	?	PP D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	-	?	?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

5/8

1:32

1	-	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	PP PR D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	?	?	?	?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

6/8

1:28

1	-	-	-	PP D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	-	PP D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	PP PR D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	?	?	?	?	PR D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

7/8

DEC 15 1950

MORTALITY

35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

SPECIMEN

VIRUS No.

10 9 8 7 6 5 4 3 2 1

— — — — — — — — — —

D D D D

PPD PPD PPD PPD

— — — — — — — — — —

— — — — — — — — — —

— — — — — — — — — —

— — — — — — — — — —

— — — — — — — — — —

— — — — — — — — — —

— — — — — — — — — —

— — — — — — — — — —

— — — — — — — — — —

— — — — — — — — — —

— — — — — — — — — —

— — — — — — — — — —

G

CONTROL  
SALINE  
+  
LANSING

10/10

ED

PD

PD

PPD

PPD

—

—

—

—

—

—

—

—

—

—

—

—

—

SUMMARY OF TEST OF DECEMBER 18, 1950

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN COW  
SERA RECEIVED FROM DR. HUEBNER 11/6/50

SPECIMEN	MORTALITY AT INDICATED FINAL DILUTION OF SERUM VS. 50 PD <sub>50</sub> OF VIRUS				50% PROTECTIVE ENDPOINT
	2	8	32	128	
SERUM FROM COW# AR 198(343) 59786	5/7	8/8	7/8	8/8	< 1:2
SERUM FROM COW# AR 232(250) 59799	6/8	6/8	6/8	7/8	1:2
SERUM FROM COW# AR 245(265) 59805	2/7	8/8	7/8	7/8	1:4
SERUM FROM COW# 305(319) 59826	4/8	5/8	8/8	8/8	1:3
SERUM FROM COW# AR 307(30) 59827	7/8	5/8	8/8	7/7	< 2
SERUM FROM COW# AR-H-328(353) 59832	5/8	6/7	8/8	8/8	< 2
SERUM FROM COW# AR-H-353(57) 59840	7/8	7/8	8/8	7/8	< 2

CONTROL 16/16  
VIRUS 1:50

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN  
COW SERA RECEIVED FROM DR. HUEBNER 11/6/50

PURPOSE: To determine the titer of activity of the antiviral factor in cow sera against 50 PD<sub>50</sub> of virus. These sera were previously shown to be active against Lansing virus in a screen test.

VIRUS: Lansing virus: Pool II of 6/6/50. 10% suspension in saline. Centrifuged 10 minutes at 2000 rpm to remove flocculant ppt.

PROCEDURE: The sera were diluted serially in four-fold dilutions - undiluted, 1:4, 1:16, 1:64. To 0.2 ml of each dilution 0.2 ml of 50 PD<sub>50</sub> of Lansing virus was added (so that the final dilution of virus was 1:50). Recent titrations have shown LD<sub>50</sub> of the virus to be  $10^{-3.4}$  rather than the previous  $10^{-4.0}$ . Final dilutions of specimens were 1:2, 1:8, 1:32, 1:128. Mixtures were shaken and incubated at room temperature for 1 hour. Tubes were placed in an ice bath during inoculation.

MICE: Maxfields 18-20 grams 8 per dilution

CODE	SPECIMEN	1:2	1:8	1:32	1:128
A	SERUM FROM COW #AR 198 (343) 59786	5/8	8/8	7/8	8/8
B	SERUM FROM COW #AR 232 (250) 59799	6/8	6/8	6/8	7/8
C	SERUM FROM COW #AR 245 (265) 59805	2/8	8/8	7/8	7/8
D	SERUM FROM COW #AR 305 (319) 59826	4/8	5/8	8/8	8/8
E	SERUM FROM COW #AR 307 (34) 59827	7/8	5/8	8/8	7/8
F	SERUM FROM COW #AR-H-328 (353) 59832	5/8	6/8	8/8	8/8
G	SERUM FROM COW #AR-H-353 (57) 59840	7/8	7/8	8/8	7/8
H	CONTROL VIRUS 1:50	16/16			

DEC 18 1950

MORTALITY LD50

SPECIMEN SERUM NO 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

A

5/7 < 2

SERUM FROM COW #AR 198(343) 69786

1:2  
 1 -  
 2 -  
 3 -  
 4 -  
 5 -  
 6 -  
 7 -  
 8 -  
 9 -  
 10 -  
 11 -  
 12 -  
 13 -  
 14 -  
 15 -  
 16 -  
 17 -  
 18 -  
 19 -  
 20 -  
 21 -  
 22 -  
 23 -  
 24 -  
 25 -  
 26 -  
 27 -  
 28 -  
 29 -  
 30 -  
 31 -  
 32 -  
 33 -  
 34 -  
 35 -

+

8/8

1:8  
 1 -  
 2 -  
 3 -  
 4 -  
 5 -  
 6 -  
 7 -  
 8 -  
 9 -  
 10 -  
 11 -  
 12 -  
 13 -  
 14 -  
 15 -  
 16 -  
 17 -  
 18 -  
 19 -  
 20 -  
 21 -  
 22 -  
 23 -  
 24 -  
 25 -  
 26 -  
 27 -  
 28 -  
 29 -  
 30 -  
 31 -  
 32 -  
 33 -  
 34 -  
 35 -

1:50

7/8

1:32  
 1 -  
 2 -  
 3 -  
 4 -  
 5 -  
 6 -  
 7 -  
 8 -  
 9 -  
 10 -  
 11 -  
 12 -  
 13 -  
 14 -  
 15 -  
 16 -  
 17 -  
 18 -  
 19 -  
 20 -  
 21 -  
 22 -  
 23 -  
 24 -  
 25 -  
 26 -  
 27 -  
 28 -  
 29 -  
 30 -  
 31 -  
 32 -  
 33 -  
 34 -  
 35 -

8/8

1:28  
 1 -  
 2 -  
 3 -  
 4 -  
 5 -  
 6 -  
 7 -  
 8 -  
 9 -  
 10 -  
 11 -  
 12 -  
 13 -  
 14 -  
 15 -  
 16 -  
 17 -  
 18 -  
 19 -  
 20 -  
 21 -  
 22 -  
 23 -  
 24 -  
 25 -  
 26 -  
 27 -  
 28 -  
 29 -  
 30 -  
 31 -  
 32 -  
 33 -  
 34 -  
 35 -

PP D

B

SERUM FROM COW #AR 232(250) 59799

+



1:50

6/8 1:2

6/8

6/8

8/8

1 - cisvscus D

2 - D

3 - APP D

4 - w Ppe

5 -

6 -

7 -

8 -

1:2

1 - 1 1 ? D

2 - ?

3 -

4 -

5 -

6 -

7 -

8 -

1:8

1 - P P P D

2 - ? ? ?

3 -

4 -

5 -

6 -

7 -

8 -

1:32

1 - P D

2 - ? ?

3 -

4 -

5 -

6 -

7 -

8 -

1:128

- P P P D

D

P D

D

P

D

P P P D

D

P D

D

P D

P D

P D

P D

DEC 18 1950

LD50

MORTALITY

3435

32 31 30 29 28 27

26 25 24 23 22 21

20 19 18 17 16 15

14 13 12 11 10 9

8 7 6 5 4 3

2 1

SERUM NO.

1 2 3 4 5 6 7 8

1:2

1:4

1:8

1:32

1:128

1:256

1:512

1:1024

1:2048

1:4096

1:8192

1:16384

1:4

8/8

8/8

8/8

SPECIMEN C  
SERUM FROM COW #AR 245(265) 59805

+



1:50

SERUM NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SERUM FROM COW #AR 245(265) 59805



1:50





SPECIMEN SERUM NO 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 MORTALITY L D 50

F

SERUM FROM COW #AR-H-328(353) 59832

+



1:50

5/8 < 2

6/7

8/8

8/8

1:2  
1 - P P P D  
2 - ? P P D  
3 - ? P P D  
4 - ? P P  
5 - ? P P  
6 - ? P P  
7 - ? P P  
8 - ? P P  
9 - ? P P  
10 - ? P P  
11 - ? P P  
12 - ? P P  
13 - ? P P  
14 - ? P P  
15 - ? P P  
16 - ? P P  
17 - ? P P  
18 - ? P P  
19 - ? P P  
20 - ? P P  
21 - ? P P  
22 - ? P P  
23 - ? P P  
24 - ? P P  
25 - ? P P  
26 - ? P P  
27 - ? P P  
28 - ? P P  
29 - ? P P  
30 - ? P P  
31 - ? P P  
32 - ? P P  
33 - ? P P  
34 - ? P P  
35 - ? P P

1:8  
1 - ? P P P D  
2 - ? P P P D  
3 - ? P P P D  
4 - ? P P P D  
5 - ? P P P D  
6 - ? P P P D  
7 - ? P P P D  
8 - MISSING CHICKS  
9 - ? P P P D  
10 - ? P P P D  
11 - ? P P P D  
12 - ? P P P D  
13 - ? P P P D  
14 - ? P P P D  
15 - ? P P P D  
16 - ? P P P D  
17 - ? P P P D  
18 - ? P P P D  
19 - ? P P P D  
20 - ? P P P D  
21 - ? P P P D  
22 - ? P P P D  
23 - ? P P P D  
24 - ? P P P D  
25 - ? P P P D  
26 - ? P P P D  
27 - ? P P P D  
28 - ? P P P D  
29 - ? P P P D  
30 - ? P P P D  
31 - ? P P P D  
32 - ? P P P D  
33 - ? P P P D  
34 - ? P P P D  
35 - ? P P P D

1:32  
1 - P P D  
2 - ? P P P D  
3 - ? P P P D  
4 - ? P P P D  
5 - ? P P P D  
6 - ? P P P D  
7 - ? P P P D  
8 - ? P P P D  
9 - ? P P P D  
10 - ? P P P D  
11 - ? P P P D  
12 - ? P P P D  
13 - ? P P P D  
14 - ? P P P D  
15 - ? P P P D  
16 - ? P P P D  
17 - ? P P P D  
18 - ? P P P D  
19 - ? P P P D  
20 - ? P P P D  
21 - ? P P P D  
22 - ? P P P D  
23 - ? P P P D  
24 - ? P P P D  
25 - ? P P P D  
26 - ? P P P D  
27 - ? P P P D  
28 - ? P P P D  
29 - ? P P P D  
30 - ? P P P D  
31 - ? P P P D  
32 - ? P P P D  
33 - ? P P P D  
34 - ? P P P D  
35 - ? P P P D

1:128  
1 - D  
2 - P P A D  
3 - P P A D  
4 - C A S P P P D  
5 - ? P P P D  
6 - ? P P P D  
7 - ? P P P D  
8 - ? P P P D  
9 - ? P P P D  
10 - ? P P P D  
11 - ? P P P D  
12 - ? P P P D  
13 - ? P P P D  
14 - ? P P P D  
15 - ? P P P D  
16 - ? P P P D  
17 - ? P P P D  
18 - ? P P P D  
19 - ? P P P D  
20 - ? P P P D  
21 - ? P P P D  
22 - ? P P P D  
23 - ? P P P D  
24 - ? P P P D  
25 - ? P P P D  
26 - ? P P P D  
27 - ? P P P D  
28 - ? P P P D  
29 - ? P P P D  
30 - ? P P P D  
31 - ? P P P D  
32 - ? P P P D  
33 - ? P P P D  
34 - ? P P P D  
35 - ? P P P D



SPECIMEN	VIRUS NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	MORTALITY	LD50	
H	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8/8	16/16	
	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
CONTROL	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SALINE	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
+	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SUMMARY OF TEST OF DECEMBER 19, 1950

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN COW SERA  
RECEIVED FROM DR. HOEDNER 11/6/50

SPECIMEN	MORTALITY AT INDICATED FINAL DILUTION OF SERUM VS. 50 PD <sub>50</sub> OF VIRUS				50% PROTECTIVE ENDPOINT
	2	8	32	128	
SERUM FROM COW #AR-H-366 (216) 59843	3/8	4/8	7/8	6/7	1:7
SERUM FROM COW #AR-H-371 (272) 59848	5/8	7/8	7/7	8/8	< 2
SERUM FROM COW #AR-H-399 (54) 59863	7/8	6/8	8/8	8/8	< 1:2
SERUM FROM COW #AR-H-437 (77) 59872	3/8	4/8	8/8	8/8	1:5
SERUM FROM COW #AR-H-441 (624) 59874	2/7	4/8	5/8	7/8	1:11
SERUM FROM COW #AR-H-453 (334) 59880	3/7	4/6	8/8	8/8	1:3
SERUM FROM COW #AR-H-457 (51) 59883	4/8	7/8	7/8	8/8	1:3
SERUM FROM COW #AR-H-482 (642) 59893	4/8	7/8	8/8	8/8	1:2
CONTROL VIRUS 1:50	16/16				

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN COW SERA RECEIVED FROM DR. HUEBNER 11/6/50

PURPOSE: To determine the titer of activity of the antiviral factor in cow sera against 50 PD50 of virus. These sera were previously shown to be active against Lansing virus in a screen test.

VIRUS: [REDACTED] virus: Pool IV of 6/6/50. 10% suspension in centrifuged 10 minutes at 2000 rpm to remove flocculant ppt.

PROCEDURE: The sera were diluted serially in four-fold dilutions - undiluted, 1:4, 1:16, 1:64. To 0.2 ml of each dilution 0.2 ml of 50 PD50 of Lansing virus was added (so that the final dilution of virus was 1:50.) Recent titrations have shown LD50 of the virus to be 10<sup>-2.4</sup> rather than the previous 10<sup>-4.0</sup>. Final dilutions of specimens were 1:2, 1:8, 1:32, 1:128. Mixtures were shaken and incubated at room temperature for 1 hour. Tubes were placed in an ice bath during inoculation.

MICE: Maxfields 18-20 grams 8 per dilution

CODE	SPECIMEN	1:2	1:8	1:32	1:128
A	SERUM FROM COW #AR-H-366 (286) 59843	3/8	4/8	7/8	6/7
B	SERUM FROM COW #AR-H-371 (272) 59848	5/8	7/8	7/7	2/8
C	SERUM FROM COW #AR-H-399 (54) 59863	7/8	6/8	2/8	2/8
D	SERUM FROM COW #AR-H-437 (77) 59872	3/8	4/8	2/8	2/8
E	SERUM FROM COW #AR-H-441 (224) 59874	2/7	4/8	5/8	7/8
F	SERUM FROM COW #AR-H-453 (324) 59880	3/7	4/6	2/8	2/8
G	SERUM FROM COW #AR-H-457 (51) 59883	4/8	7/8	7/8	2/8
H	SERUM FROM COW #AR-H-482 (242) 59893	4/8	7/8	2/8	2/8

I CONTROL VIRUS 1:50 16/16









DEC 19 1950

MORTALITY L D 50

1:11

2/7

4/8

5/8

7/8

SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

F

SERUM FROM COW #AR-H-44 (DAY) 59874

+

1:50

TY TY TY TY TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

TY TY TY TY

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD





SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 MORTALITY L.D.50

H

SERUM FROM COW #AR-4-482 (042) 59893

+



1:50

4/8 1:2

7/8

8/8

8/8

1:2  
1 - P  
2 - P  
3 - P  
4 - P  
5 - P  
6 - P  
7 - P  
8 - P  
1:2  
1 - P  
2 - P  
3 - P  
4 - P  
5 - P  
6 - P  
7 - P  
8 - P

1:8  
1 - P  
2 - P  
3 - P  
4 - P  
5 - P  
6 - P  
7 - P  
8 - P  
1:8  
1 - P  
2 - P  
3 - P  
4 - P  
5 - P  
6 - P  
7 - P  
8 - P

1:32  
1 - P  
2 - P  
3 - P  
4 - P  
5 - P  
6 - P  
7 - P  
8 - P  
1:32  
1 - P  
2 - P  
3 - P  
4 - P  
5 - P  
6 - P  
7 - P  
8 - P

1:128  
1 - P  
2 - P  
3 - P  
4 - P  
5 - P  
6 - P  
7 - P  
8 - P  
1:128  
1 - P  
2 - P  
3 - P  
4 - P  
5 - P  
6 - P  
7 - P  
8 - P

DEC 19 1956

MORTALITY LD50

SPECIMEN VIRUS NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

I

CONTROL

SALINE

+

1:50

1:50

1:50

1:50

1:50

1:50

1:50

1:50

1:50

1:50

1:50

1 - P D  
2 - P P D  
3 - P D  
4 - ?  
5 - P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

1 - P D  
2 - P P D  
3 - P P D  
4 - P P D  
5 - P P D  
6 - P P D  
7 - P P D  
8 - P P D

8/8

8/8

16/16

SUMMARY OF TEST OF DECEMBER 21, 1950

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN COW  
SERA RECEIVED FROM DR. HUEBNER 11/6/50

SPECIMEN	MORTALITY AT INDICATED FINAL DILUTION OF SERUM vs. 50 PRSD OF VIRUS				50% PROTECTIVE END POINT
	2	8	32	128	
SERUM FROM COW #AR-H-484 (87) 59894	6/8	7/8	8/8	8/8	< 1:2
SERUM FROM COW #AR-H-494 (73) 59899	8/8	7/8	8/8	8/8	< 1:2
SERUM FROM COW #AR-C-504 (40) 59904	3/8	3/8	8/8	8/8	1:6
SERUM FROM COW #AR-C-511 (52) 59908	6/8	5/8	8/8	8/8	< 1:2
CONTROL VIRUS 1:50	15/16				

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN  
COW SERA RECEIVED FROM DR. HUEBNER 11/6/50

PURPOSE: To determine the titer of activity of the antiviral factor in cows sera against 50 PD<sub>50</sub> of virus. These sera were previously shown to be active against Lansing virus in a screen test.

VIRUS: [REDACTED] virus: Pool V of 6/6/50. 10% suspension in  
Centrifuged 10 minutes at 2000 rpm to remove flocculant ppt.

PROCEDURE: The sera were diluted serially in four-fold dilutions - undiluted, 1:4, 1:16, 1:64. To 0.2 ml of each dilution 0.2 ml of 50 PD<sub>50</sub> of Lansing virus was added (so that the final dilution of virus was 1:50). Recent titrations have shown LD<sub>50</sub> of this virus to be  $10^{-3.4}$  rather than the previous  $10^{-4.0}$ . Final dilutions of specimens were 1:2, 1:8, 1:32, 1:128. Mixtures were shaken and incubated at room temperature for 1 hour.

MICE: Swiss Albino<sup>18-30</sup> and PRI 18-20 grams 8 per dilution

CODE	SPECIMEN	1:2	1:8	1:32	1:128
A	SERUM FROM COW #AR-H-484 (89) 59894	4/8	7/8	8/8	8/8
B	SERUM FROM COW #AR-H-494 (73) 59899	8/8	7/8	8/8	8/8
C	SERUM FROM COW #AR-C-504 (70) 59904	2/8	3/8	8/8	8/8
D	SERUM FROM COW #AR-C-511 (52) 59908	6/8	5/8	8/8	8/8
E	CONTROL VIRUS 1:50	15/16			

DEC 21 1950

MORTALITY 6 D 50

SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

SPECIMEN

A

SERUM FROM COW #AR-H-484(89) 59894

+

[Redacted]

1:50

< 1:2

6/8

7/8

8/8

8/8

1 - PP D  
 2 - ww PP D  
 3 - - cas D  
 4 - - - PRD  
 5 - - - PRPRD  
 6 - - - - ? PP D  
 7 - - - -  
 8 - - - -

1 - ? D  
 2 - - D  
 3 - - - PP D  
 4 - - - - P D  
 5 - - - - ? PRD  
 6 - - - - - w P D  
 7 - - - - -  
 8 - - - - - ? D

1 - PP D  
 2 - P D  
 3 - - D  
 4 - - - PP D  
 5 - - - - ? PRD  
 6 - - - - PRD  
 7 - - - - - w D  
 8 - - - - - PRD

1 - D  
 2 - D  
 3 - D  
 4 - - D  
 5 - - D  
 6 - - D  
 7 - - D  
 8 - - - ? PRD

SERUM NO.

1:2

PRI

1:8

PRI

1:32

PRI

1:128

PRI

SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 02 33 34 35 MORTALITY L.D.S.

B

SERUM FROM COW #AR-H-494(73) 59899

+

1:50

8/8 < 1:2

7/8

8/8

8/8

20%

1 - cut PD  
 2 - PD  
 3 - cut D  
 4 - ? cut D  
 5 - PD  
 6 - PD  
 7 - PD  
 8 - PD

1 - PD  
 2 - PD  
 3 - PD  
 4 - PD  
 5 - PD  
 6 - PD  
 7 - PD  
 8 - PD

1 - PD  
 2 - PD  
 3 - PD  
 4 - PD  
 5 - PD  
 6 - PD  
 7 - PD  
 8 - PD

1 - PD  
 2 - PD  
 3 - PD  
 4 - PD  
 5 - PD  
 6 - PD  
 7 - PD  
 8 - PD

DEC 21 1950

MORTALITY 6P50

SPECIMEN

SERUM

M

1 2 3 4 5 6 7 8

1:2

swiss

1 2 3 4 5 6 7 8

1:32

swiss

1 2 3 4 5 6 7 8

1:28

swiss

1 2 3 4 5 6 7 8

1:50

swiss

1 2 3 4 5 6 7 8

1:32

swiss

1 2 3 4 5 6 7 8

1:28

swiss

1 2 3 4 5 6 7 8

1:50

swiss

1 2 3 4 5 6 7 8

1:32

swiss

1 2 3 4 5 6 7 8

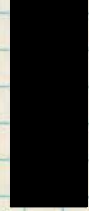
1:28

swiss

C

SERUM FROM COW #AR-C-504(4b) 59904

+



1:50

? PP D

swiss

swiss

D

cos D

?

D

D

EED

D

1:32

? P D

? P D

D

D

P D

swiss

D

D

? ? n. EED

? ?

D P D

? P D

? P D

D

D

D

D

D

D

D

D

D

D

D

D

D

D

D

D

D

D

3/8 1:6

3/8

9/8

e/8

SPECIMEN SERUM NO 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 MORTALITY 4 D50

D

SERUM FROM COW #AR-C-511(52) 59908

6/8 < 1:2

5/8

8/8

8/8

Serum No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35					
1:2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Swiss	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
1:8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Swiss	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
1:32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Swiss	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1:128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Swiss	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

STANDARD B & P "NOLEAR"

STANDARD B & P

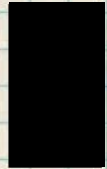
DEC 21 1950

SPECIMEN VIRUS M. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 MORTALITY 6D 50

7/8 15/16

8/8

SP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
F	D	D	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:50	-	-	-	-	P D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CONTROL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SALINE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PAT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



SUMMARY OF TEST OF DECEMBER 26, 1950

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN COW  
SERA RECEIVED FROM DR. HUEBNER 11/6/50

SPECIMEN	MORTALITY AT INDICATED FINAL DILUTION OF SERUM VS 50PDS. OF VIRUS				50% PROTECTIVE ENDPOINT
	2	8	32	128	
SERUM FROM COW #AR-C-521(185) 59914	3/7	3/8	8/8	8/8	1:6
SERUM FROM COW #AR-C-523(87) 59915	4/8	6/8	8/8	8/8	1:2
SERUM FROM COW #AR-C-525(44) 59916	4/8	5/8	8/8	8/8	1:3
SERUM FROM COW #AR-C-540(330) 59929	3/7	3/8	7/8	8/8	1:8
SERUM FROM COW #AR-C-544(320) 59932	6/8	7/7	8/8	7/8	<1:2
SERUM FROM COW #AR-C-545(340) 59933	7/7	8/8	8/8	8/8	<1:2
SERUM FROM COW #AR-C-552(88) 59939	3/7	7/7	8/8	8/8	1:2
SERUM FROM COW #AR-C-556(146) 59943	7/8	6/8	8/8	8/8	<1:2
CONTROLS 16/16 VIRUS 1:50					

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN COW SERA RECEIVED FROM DR. HUEBNER 11/6/50

PURPOSE: To determine the titer of activity of the antiviral factor in cows sera against 50 PD50 of virus. These sera were previously shown to be active against Lansing virus in a screen test.

VIRUS: [REDACTED] virus: Pool II of 6/16/50. 10% suspension in Centrifuged 10 minutes at 2000 rpm to remove flocculant ppt.

PROCEDURE: The sera were diluted serially in four-fold dilutions - undiluted 1:4, 1:16, 1:64. To 0.2 ml of each dilution 0.2 ml of 50 PD50 of Lansing virus was added (so that the final dilution of virus was 1:50). Recent titrations have shown LD50 of the virus to be 10<sup>-3.4</sup> rather than the previous 10<sup>-4.0</sup>. Final dilution of specimens were 1:2, 1:8, 1:32, 1:128. Mixtures were shaken and incubated at room temperature for 1 hour. Tubes were placed in an ice bath during inoculation.

MICE: Maxfields 18-20 grams 8 per dilution

CODE	SPECIMEN	1:2	1:8	1:32	1:128
A	SERUM FROM COW #AR-C-521 (185) 59914	3/7	3/8	8/8	8/8
B	SERUM FROM COW #AR-C-523 (137) 59915	4/8	6/8	8/8	8/8
C	SERUM FROM COW #AR-C-525 (44) 59916	4/8	5/8	8/8	8/8
D	SERUM FROM COW #AR-C-540 (330) 59929	3/7	3/8	7/8	8/8
E	SERUM FROM COW #AR-C-544 (320) 59932	5/8	7/7	8/8	7/8
F	SERUM FROM COW #AR-C-545 (340) 59933	7/7	8/8	8/8	8/8
G	SERUM FROM COW #AR-C-552 (188) 59939	3/7	7/7	8/8	8/8
H	SERUM FROM COW #AR-C-556 (146) 59943	7/8	6/8	8/8	8/8
I	CONTROL VIRUS 1:50	16/16			

DEC 26 1950

MORTALITY

SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 X

19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

LD50

A

1:6

3/7

SERUM FROM COW #AR-C-521(115) 59914

1 - D  
2 - P  
3 - P  
4 - P  
5 - P  
6 - P  
7 - P  
8 - P

3/8

P

+

[REDACTED]

1:50

1 - P  
2 - P  
3 - P  
4 - P  
5 - P  
6 - P  
7 - P  
8 - P

8/8

P P P D

P P P D

1 - P  
2 - W  
3 - P  
4 - P  
5 - P  
6 - P  
7 - P  
8 - P

8/8

D D

? D

? D

? D

? D

? D

? D

? D

? D

? D

? D

? D

LD51

MORTALITY

SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

B

1:2

4/8

1:2

SERUM FROM COW #AR-C-523 (B7) 59915

+

6/8

1:8

1:50

8/8

1:32

8/8

1:28

STANDARD B & P "NOTEPAPER"

B & P "NOTEPAPER"

SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

C

1:2

D  
D  
PPD  
?

1:3

4/8

SERUM FROM COW #ARC-525(44) 599/6

+

1:8

D

? PPD

? PPD

?

?

?

?

5/8

EE D



1:50

PPD

PPD

PPD

PPD

PPD

PPD

8/8

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

8/8

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

8/8

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

PPD

SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 MORTALITY W.D.S.

D

SERUM FROM COW #AR-C-540(330) 59929

1:2

1	-	-	PD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	PP	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TYD TYPHOID

3/7 1:8

+

1:8

1	-	-	?D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	??	-	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	PPP	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

3/8

1:50

1:32

1	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	??	-	-	-	P	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

7/8

1:28

1	-	-	PD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	??	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	??	-	-	-	-	-	-	-	-	-	PP	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

8/8



SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 MORTALITY L.D.50

F

SERUM FROM COW #AR-C-545 (370) 59933

+

1:56

< 1:2

7/7

8/8

8/8

8/8

1 ①  
2 P D  
3 ? D  
4 -  
5 -  
6 -  
7 -  
8 -  
1:2

1 - D  
2 - P  
3 - P  
4 - ?  
5 - P  
6 - P  
7 - P  
8 - P  
1:8

1 - D  
2 - D  
3 - P  
4 - ?  
5 - P  
6 - P  
7 - P  
8 - P  
1:32

1 - D  
2 - D  
3 - ?  
4 - ?  
5 - P  
6 - P  
7 - P  
8 - P  
1:28

ED

P P P P D

D

D ? P P P P D

P P P R D





DEC 26 1950

MORTALITY LD50

SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

I

CONTROL

SALINE

+

1 - D

2 - D

3 - PP D

4 - PP D

5 - ? PP D

6 - ? D

7 - ? PP D

8 - ?

1 - D

2 - PP D

3 - PP PP D

4 - PP PP D

5 - ? ? ?

6 - ?

7 - ?

8 - ?

8/8

16/16

8/8

1:50

1:50

- PP D  
- PP D  
- PP D  
- PP D

PP D

EE D

D

SUMMARY OF TEST OF DECEMBER 28, 1950

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN CALF  
 SERA RECEIVED FROM DR. HUEBNER 11/6/50

SPECIMEN	MORTALITY AT INDICATED FINAL DILUTION OF SERUM VS 50% <sub>50</sub> OF VIRUS				50% <sub>50</sub> PROTECTIVE ENDPOINT
	2	8	32	128	
SERUM FROM CALF # J1221 57603	5/8	7/8	6/8	7/8	1:3
SERUM FROM CALF # J1231 57610	5/8	7/8	7/8	8/8	1:2
SERUM FROM CALF # J 1234 57613	5/8	8/8	8/8	8/8	<1:2
SERUM FROM CALF # J 1238 57617	8/8	8/8	8/8	8/8	<1:2

CONTROL 12/13  
 VIRUS 1:50

QUANTITATIVE TEST FOR [REDACTED] ANTIBODIES IN COW SERA RECEIVED FROM DR. HUEBNER 11/6/50

PURPOSE:

To determine the titer of activity of the antiserum factor in cow sera against 50 PD<sub>50</sub> of virus. These sera were previously shown to be active against Lansing virus in a screen test.

VIRUS:

[REDACTED] virus: Pool of 6/16/50. 10% suspension in saline. centrifuged 10 minutes at 2000 rpm to remove flocculant ppt.

PROCEDURE:

The sera were diluted serially in four-fold dilutions - undiluted, 1:4, 1:16, 1:64. To 0.2 ml of each dilution 0.2 ml of 50 PD<sub>50</sub> of virus was added (so that the final dilution of virus was 1:50). Recent titration of the virus have shown the LD<sub>50</sub> to be 10<sup>-3.4</sup> rather than the previous 10<sup>-4.0</sup>. Final dilutions of the specimens were 1:2, 1:8, 1:32, 1:128. Mixtures were shaken and inoculated at room temperature for 1 hour.

MICE:

Maxfields 18-20 grams 8 per dilution

<u>CODE</u>	<u>SPECIMEN</u>	1:2	1:8	1:32	1:128
A	SERUM FROM CALF #J 1221 57603	5/8	7/8	6/8	7/8
B	SERUM FROM CALF #J 1231 57610	5/8	7/8	7/8	8/8
C	SERUM FROM CALF #J 1234 57613	5/8	8/8	8/8	8/8
D	SERUM FROM CALF #J 1237 57617	8/8	8/8	8/8	8/8
E	CONTROL VIRUS 1:50	12/13			

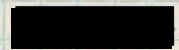
SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

MORTALITY L D57

A

SERUM FROM CALF #J 1221 57603

+



1:50

1:2

1	- D																																		
2	- PR D																																		
3	- ? ?																																		
4	- ? ?																																		
5	- - -																																		
6	- - -																																		
7	- - -																																		
8	- - -																																		

5/8

1:3

1:8

1	- PR PR D																																		
2	- cas cas D																																		
3	- ? ? D																																		
4	- - - P PR PR D																																		
5	- - -																																		
6	- - -																																		
7	- - -																																		
8	- - -																																		

7/8

1:32

1	- D																																			
2	- - - D																																			
3	- - -																																			
4	- - -																																			
5	- - -																																			
6	- - -																																			
7	- - -																																			
8	- - -																																			

6/8

1:28

1	- P D																																			
2	- P D																																			
3	- ? ?																																			
4	- - -																																			
5	- - -																																			
6	- - -																																			
7	- - -																																			
8	- - -																																			

7/8





SPECIMEN SERUM NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 MORTALITY L.D.C.

D

1:2

8/8

SERUM FROM CALF # J 1238 57617

D  
P.D

8/8

+



1:50

8/8

8/8

MORTALITY

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

E

CONTROL

SALINE

+

1:50  
 1 - D  
 2 - PP  
 3 - PP  
 4 - ?  
 5 - -  
 6 X  
 7 X  
 8 X

1:50  
 1 - D  
 2 - P  
 3 - ?  
 4 - -  
 5 - -  
 6 - -  
 7 - -  
 8 - -

5/5

12/13

7/8

? EE<sup>P</sup> EE<sup>P</sup> D

PP D

- - - -

? ? ?