

NEUTRALIZATION
TESTS

MAR 8 1954

Test for Type 1 Antibody in Sera of Cynomolgus Monkeys
 Inoculated Intracutaneously with Type 1 (Mahoney, KP35)
 Lot 1 - $10^{6.7} \text{TCID}_{50}$ on Feb. 3, 1954

Cynomolgus Monkeys - 5731 (killed 13 days after inoe.) to
 5739 (all bled 30 days after inoculation)

Pre sera - BE₁ (left deep freeze)

Post sera - (carton temp. 77) left deep freeze

Virus Used: Mahoney, KP35, lot 4 - amp. No. 1 (A-4-2)
 Final 100TCID_{50} contained in $10^{3.5}$
 Mix 1:1600 ($10^{3.2}$) + equal vol. undil. serum.

Tubes - Pre - 2 } $\times 9 = 45$
 Post - 3 }

Controls = 3

Total 48

<u>Cyn. No.</u>	<u>Days after inocul.</u>	<u>ANTIBODY</u>	
		<u>Pre</u>	<u>Post</u>
5731	13	0	±
5732	30	0	+
5733	"	0	+
5734	"	0	+
5735	"	0	+
5736	"	0	+
5737	"	0	+
5738	"	0	+
5739	"	0	+

9/9 positive

Note: None of these showed antibody for Type or 3

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Metal in Tube	No	$\frac{1}{3/9}$	$\frac{2}{3/10}$	$\frac{3}{3/11}$	$\frac{4}{3/12}$	$\frac{5}{3/13}$	$\frac{6}{3/14}$	$\frac{7}{3/15}$	$\frac{8}{3/16}$
Mahoney 10 ^{-3.5}	1	0			off				
	2	0			off				
	3	0			off				
Cym 5731 Pre +10 ^{-3.5}	4	0			off				
	5	0			off				
Cym 5731 Post +10 ^{-3.5}	6	0			0			0	
	7	0			0			off	
	8	0			0-1			off	
Cym 5732 Pre +10 ^{-3.5}	9	0			off				
	10	0			off				
Cym 5732 Post +10 ^{-3.5}	11	0			all.			off	
	12	0			0			0	
	13	0			0			0	
Cym 5733 Pre +10 ^{-3.5}	14	0			off				
	15	0			off				
Cym 5733 Post +10 ^{-3.5}	16	0			all.				
	17	0			0			0	
	18	0			0			0	
Cym 5734 Pre +10 ^{-3.5}	19	off no power							
	20	0			off				
Cym 5734 Post +10 ^{-3.5}	21	0			0			0	
	22	0			0			all. at off (no specific change noted)	
	23	0			0			0	
Cym 5735 Pre +10 ^{-3.5}	24	0			off				
	25	0			off				
Cym 5735 Post +10 ^{-3.5}	26	0			0			0	
	27	0			0			0	
	28	0			0			0	
Cym 5736 Pre +10 ^{-3.5}	29	0			off				
	30	0			off				
Cym 5736 Post +10 ^{-3.5}	31	0			0			0	
	32	0			0			0	
	33	0			0			0	

Continued

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Test for Type I Antibody in Sera of Cynomolgus Monkeys

Inoculated Intracutaneously, Type I (Mahoney, KP35, Lt 1)

10^{-6.7} TCD₅₀) on Feb 3, 1954.

Mab inoculated	No	3/9	3/10	3/11	3/12	3/13	3/14	3/15	3/16
		1	2	3	4	5	6	7	8
Cym 5737 Pre +10 ^{-3.5}	34 0 35 0				off off				
Cym 5737 Post +10 ^{-3.5}	36 0 37 0 38 0				0 0 0				0 0 0
Cym 5738 Pre +10 ^{-3.5}	39 0 40 0				off off				
Cym 5738 Post +10 ^{-3.5}	41 0 42 0 43 0				0 0 0				0 0 0
Cym 5739 Pre +10 ^{-3.5}	44 0 45 0				off off				
Cym 5739 Post +10 ^{-3.5}	46 0 47 0 48 0				0 0 0				0 off alt. d?

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Test for Type 2 Antibody in Sera of Cynomolgus Monkeys
 Inoculated Intracutaneously with Type 1 (Mahoney, KP35, Lot 1
- $10^{6.7} \text{ TCID}_{50}$) on Feb 3, 1954.

Cynomolgus Monkeys 5731 - 5739

Pre sera - BE₁ (left deep freeze)
 Post " - " " " (carton ?? post)

Virus Used: Y-Sk, KP10 of 4/2/53 (A-5-9)
 Final 100 TCID_{50} in $10^{3.5}$.

1:1600 ($10^{-3.2}$) + equal vol. of undil. serum

Tubes:
 Pre: 2 } $25 \times 5 = 45$
 Post: 3 }
 Controls 3
 Total 48

Note - this virus appears to have lost potency and
 only 2 10 TCID_{50} were actually used

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Material in Tube	7/9	7/10	7/11	7/12	7/13	7/14	7/15	7/16	7/18
	1	2	3	4	5	6	7	8	10
Y-SK 10-3.5	49 0			0a?				TH	
	50 0			0				TH	
	51 0			3				TH	
Cym 5731 Pre +10-3.5	52 0			0				0	0
	53 0			0				TH	
Cym 5731 Post +10-3.5	54 0			0				TH	
	55 0			0-2				TH	
	56 0			0				TH	
Cym 5732 Pre +10-3.5	57 0			0				0	0
	58 0			0				TH	
Cym 5732 Post +10-3.5	59 0			0-1				TH	
	60 0			0				TH	
	61 0			0				TH	
Cym 5733 Pre +10-3.5	62 0			0				0	0
	63 0			0-1				TH	
Cym 5733 Post +10-3.5	64 0			0				0	0
	65 0			2				TH	
	66 0			0-1				TH	
Cym 5734 Pre +10-3.5	67 0			0-1				TH	
	68 0			0				0	
Cym 5734 Post +10-3.5	69 0			0				0	4
	70 0			3				TH	
	71 0			0				TH	
Cym 5735 Pre +10-3.5	72 0			0				0	0
	73 0			0				0	0
Cym 5735 Post +10-3.5	74 0			3+TH				TH	
	75 0			TH				TH	
	76 0			3+TH				TH	
Cym 5736 Pre +10-3.5	77 0			4+TH				TH	
	78 0			0				TH	
Cym 5736 Post +10-3.5	79 0			0				TH	
	80 0			0all.				TH	
	81 0			0				TH	

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Test for Type 2 Antibody in Sera of Cynomolgus Monkeys
 inoculated intracutaneously, $\bar{c}$ Type I (Mahoney, K P35, Lot I
 106.7 T(D50) on Feb 3, 1954

Material in Tube	No	$\frac{1}{9}$	$\frac{1}{10}$	$\frac{1}{11}$	$\frac{1}{12}$	$\frac{1}{13}$	$\frac{1}{14}$	$\frac{1}{15}$	$\frac{1}{16}$	$\frac{1}{18}$
		1	2	3	4	5	6	7	8	10
Cym 5737 Pre +10 -3.5	82	0			0				off	
	83	0			0				0	0
Cym 5737 Post +10 -3.5	84	0			0				0	0
	85	0			0				0	0
	86	0			0				3	4 off
Cym 5738 Pre +10 -3.5	87	0			0				3	off
	88	0			0				0	0
Cym 5738 Post +10 -3.5	89	0			0-2a				2	
	90	0			0a				0	0
	91	0			0				off	
Cym 5739 Pre +10 -3.5	92	0			2				off	
	93	0			0				off	
Cym 5739 Post +10 -3.5	94	0			no				0a	2
	95	0			off					
	96	0			0				0	0

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Test for Type 3 Antibody in Sera of Cynomolgus Monkeys
 Inoculated Intracutaneously with Type 1 (Mahoney, KP35, Lot 1)
 $-10^{6.7} \text{TCD}_{50}$ - on Feb 3, 1954

Cynomolgus Monkeys - 5731-5739

Pre sera - BE₁ left
 Post " left deep freeze post 77

Virus Used: Leon KP 36, Lot 4 (amp. No. 1) - A-4-6
 Final 100TCD_{50} in $10^{-3.3}$

1:1000 (10^{-3}) + equal vol. undil serum

Tubes

Pre - 2 } $5 \times 9 = 45$
 Post - 3 }
 Control = 3
 Total 48

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Material in Tube	No	$\frac{7}{9}$	$\frac{7}{10}$	$\frac{7}{11}$	$\frac{7}{12}$	$\frac{7}{13}$	$\frac{7}{14}$	$\frac{7}{15}$	$\frac{7}{16}$
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
Leam 10-3.3	97	0			3				OH
	98	0			2				OH
	99	0			0-1				OH
Cym 5731 Pre	100	0			1				OH
+10-3.3	101	0			3				OH
Cym 5731 Post	102	0			2-3				OH
+10-3.3	103	0			2-3 OH				
	104	0			2-3				OH
Cym 5732 Pre	105	0			0-1				OH
+10-3.3	106	0			0				OH
Cym 5732 Post	107	0			0-1				OH
+10-3.3	108	0			0				OH
	109	0			0-?				OH
Cym 5733 Pre	110	0			3 OH				OH
+10-3.3	111	0			3 OH				OH
Cym 5733 Post	112	0			2				OH
	113	0			1				OH
	114	0			2				OH
Cym 5734 Pre	115	0			4 OH				
	116	0			0-?				OH
Cym 5734 Post	117	0			2				OH
	118	0			2				OH
	119	0			2				OH
Cym 5735 Pre	120	0			0				OH
	121	0			3				OH
Cym 5735 Post	122	0			2				OH
	123	0			3				OH
	124	0			2				OH
Cym 5736 Pre	125	0			4 OH				
	126	0			2				OH
Cym 5736 Post	127	0			3 OH				OH
	128	0			3 OH				OH
	129	0			4 OH				

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Test for Type 3 Antibody in Sera of Cynomolgus Monkeys
Inoculated Intracutaneously with Type 1 (Mahoney, KP 35, Lot 1
106.7 TCD₅₀ on Feb 3, 1954

Material in Tubes	No	3/9	3/10	3/11	3/12	3/13	3/14	3/15	3/16
		1	2	3	4	5	6	7	8
Cym 5737 Pre	130	0			0				TH
	131	0			TH				
Cym 5737 Post	132	0			TH				
	133	0			3				TH
	134	0			4				TH
Cym 5738 Pre	135	0			2				TH
	136	0			0				TH
Cym 5738 Post	137	0			2				TH
	138	0			2				TH
	139	0			4 TH				
Cym 5739 Pre	140	0			4				TH
	141	0			2				TH
Cym 5739 Post	142	0			1				TH
	143	0			4 TH				
	144	0			2				TH

Test for Type 1 Antibody in Cynomolgus Monkeys Inoculated
Intracutaneously with Mahoney KP35, Lot 2 or 3

Monkey Sera: Lot 2 - $10^{6.4} \text{TCID}_{50}$ - all bled 33 days after inoculation

5740, 5742-5748 - 8 sera pre + post

Lot 3 - $10^{6.2} \text{TCID}_{50}$ - all bled 35 days after inoculation

5750, 5752-5758 - 8 sera pre + post

Pre sera — BE₁ — left deep freeze
 Post sera — BH — " " "

Virus Used: Mahoney KP35, lot 4 - amp. No. 1 - (A-4-2)
 Final 100TCID_{50} in $10^{-3.5}$ Use 1:1600

Tubes — 2 for pre; 3 for post; $5 \times 16 = 80$ + controls

Material in Tube	No.	1	2	3	4	5	6	7	8
		$\frac{3}{13}$	$\frac{3}{24}$	$\frac{3}{25}$	$\frac{3}{26}$	$\frac{3}{27}$	$\frac{3}{28}$	$\frac{3}{29}$	$\frac{3}{30}$
Mahoney $10^{-3.5}$	1	0		TH					
	2	0		TH					
	3	0		TH					
Cym 5740 Pre	4	0		TH					
$+10^{-3.5}$	5	0		TH					
Cym 5740 Post	6	0		0					0
$+10^{-3.5}$	7	0		0					0
	8	0		0					0
Cym 5742 Pre	9	0		TH					
$+10^{-3.5}$	10	0		TH					
Cym 5742 Post	11	0		0					0
$+10^{-3.5}$	12	0		0					0
	13	0		0					0
Cym 5743 Pre	14	0		TH					
$+10^{-3.5}$	15	0		TH					
Cym 5743 Post	16	0		0					0
$+10^{-3.5}$	17	0		0					0
	18	0		0					0

Material in Tube	No	$\frac{3}{23}$	$\frac{3}{24}$	$\frac{3}{25}$	$\frac{3}{26}$	$\frac{3}{27}$	$\frac{3}{28}$	$\frac{3}{29}$	$\frac{3}{30}$
		1	2	3	4	5	6	7	8
Cym 5744 Pre +10 -3.5	29	0			off				
	20	0			off				
Cym 5744 Post +10 -3.5	21	0			0				0
	22	0			0				0
	23	0			0				0
Cym 5745 Pre +10 -3.5	24	0			off				
	25	0			off				
Cym 5745 Post +10 -3.5	26	0			0				0
	27	0			0				0
	28	0			0				0
Cym 5746 Pre +10 -3.5	29	0			off				
	30	0			off				
Cym 5746 Post +10 -3.5	31	0			0				0
	32	0			0				0
	33	0			0				0
Cym 5747 Pre +10 -3.5	34	0			off				
	35	0-1			off				
Cym 5747 Post +10 -3.5	36	0			0				off
	37	0			0				0
	38	0			0				0
Cym 5748 Pre +10 -3.5	39	0			off				
	40	0			off				
Cym 5748 Post +10 -3.5	41	0			0				0
	42	0			0				0
	43	0			0				0
Cym 5750 Pre +10 -3.5	44	0			0				0
	45	0			0				0
Cym 5750 Post +10 -3.5	46	0			0				0
	47	0			off				
	48	0			off				
Cym 5752 Pre +10 -3.5	49	0			0				0
	50	cont. mold			0				off specific?
Cym 5752 Post +10 -3.5	51	0			0 cont				off specific?
	52	0-1			off				
	53	0			off				

Repeated
Juncoszek
mixed up
tubes

Test for Type I Antibody, in *Cynomolgus* Monkeys Inoculated Intracutaneously $\pm$ Mahoney, KP 35. Lot 2 or 3.

Material in Tube	No	3/23	3/24	3/25	3/26	3/27	3/28	3/29	3/30
		1	2	3	4	5	6	7	8
Cym 5753 Pre +10 - 3.5	54	0			00				00
	55	0			00a				00
Cym 5753 Post +10 - 3.5	56	0			0				0
	57	0			00				
	58	0			00				
Cym 5754 Pre +10 - 3.5	59	0			0				0
	60	0			0				0
Cym 5754 Post +10 - 3.5	61	0			0				0
	62	0			00				
	63	0			00				
Cym 5755 Pre +10 - 3.5	64	0			00				
	65	0-1			00				
Cym 5755 Post +10 - 3.5	66	0			0				0
	67	0			0				0
	68	0			0				0
Cym 5756 Pre +10 - 3.5	69	0			00				
	70	0			00				
Cym 5756 Post +10 - 3.5	71	0			0				0
	72	0			0				0
	73	0			0a				0a
Cym 5757 Pre +10 - 3.5	74	0			00				
	75	0			00				
Cym 5757 Post +10 - 3.5	76	0			0				0
	77	0			0				0
	78	0			0				0
Cym 5758 Pre +10 - 3.5	79	0			00				
	80	0			00				
Cym 5758 Post	81	0			0				0
	82	0			0				0
	83	0			0				0

Repeated
Inoculation
mixed up
tubes

REPEAT TEST

March 27, 1954

Test for Type I Antibody in Cynomolgus Monkeys
Inoculated Intracutaneously with Makoney KP35, Lot 203

Monkey Sera: Lot 3 - $10^{6.2}$ TCD₅₀ - bled 35 days after inoculation
Cyn 5750, 5752, 5753, 5754 pre & post
Pre Sera - BE, - left deep freeze
Post Sera - BH - " " "

Virus Used: Makoney KP35, Lot 4 - Amp. No. 1 (A-4-2)
Final 100 TCD₅₀ in $10^{-3.5}$; titer 1:1600

Material in Tube	Tube No.	3/28	3/29	3/30	3/31	4/1	4/2	4/3	4/4
		1	2	3	4	5	6	7	8
Makoney $10^{-3.5}$	44-201	0-2			TH				
	202	0			TH				
	203	0			TH				
Cyn. 5750 pre + $10^{-3.5}$	45-204	0			TH				
	44-205	0-1			TH				
Cyn. 5750 post + $10^{-3.5}$	206	0			0				0
	207	0			und				
	208	0			0				0
Cyn. 5752 pre + $10^{-3.5}$	209	0-2			TH				
	210	1			TH				
Cyn. 5752 post + $10^{-3.5}$	211	0			0				0
	212	0			0				0
	213	0			0				0
Cyn. 5753 pre + $10^{-3.5}$	214	0-1			TH				
	215	0			TH				
Cyn. 5753 post + $10^{-3.5}$	216	0			0				0
	217	0			0				0
	218	0			0				0
Cyn. 5754 pre + $10^{-3.5}$	219	0			TH				
	220	0			TH				

(over)

Material in
Tubes

Tube	$\frac{28}{28}$	$\frac{29}{29}$	$\frac{30}{30}$	$\frac{31}{31}$	$\frac{41}{41}$	$\frac{42}{42}$	$\frac{43}{43}$	$\frac{44}{44}$
770.	1	2	3	4	5	6	7	8

Cym 5754 Post
+ 10 - 3.5

44-221 0

0

0

222 0

0

0

223 0

0

0

APR 14 1954

Test for Type 1 Antibody in Cynomolgus Monkeys Used in Various Tests of Mahoney Series Virus

Virus Used: Mahoney, KP35, Lot 4 (Amp. No. 1) — A-4-2
Final 100 TC₅₀/0.2 ml in 10^{-3.5}; use 1:1600

Group	Cynomolgus tested	Tube No.	1/5 1	1/18 4	1/22 8
Mahoney, KP33 Spinal	6065	301	0	OH	
		302	0	OH	
		303	0	OH	
	6066	304	serum missing monkey not here		
		305			
		306			
	6067	307	0	0	0
		308	0	0	0
		309	0	0	0
	6068	310	0	OH	
		311	0	OH	
		312	0	OH	
		x			
Mahoney, KP33 i. cer.	6070	313	0	OH	
		314	0	OH	
		35-315	0	OH	
	6071	316	0	4	
		317	0	4	
		318	0	4	
	6072	319	0	OH	
		320	0	OH	
		321	0	OH	
decr. pass from Cyn 5731 Mah, KP35, Lot 1 i. cut.	6077	322	0-1	OH	
		323	0	OH	
		324	0	OH	
	6078	325	0-1	OH	
		326	0-1	OH	
		327	0	OH	
	6079	328	0-1	OH	
		329	0	OH	
		330	0	OH	

over

Group contin.	Cynomolgus tested	Tube No.	$\frac{1}{15}$	$\frac{1}{3}$ 4	$\frac{1}{2}$ 2
	6080	331	0	OH	
	BM ₂	332	0	OH	
		333	0	OH	

Deer pass from Cyn 5861 KP35, Lot 4, icer	6093	334	0	0	OH
		335	0	0	0
		336	0	0	OH
BM ₂	6094	337	0	OH	
		338	0	OH	
		339	0	OH	
	6096	340	0-1	OH	
		341	0-1	OH	
		342	0-1	OH	

KP33 icer.	5991	343	0	OH	
		344	0	OH	
		345	0	OH	
	5993	346	0	OH	
		347	0	OH	
		348	0	OH	
KP35 icer.	5994	349	0	OH	
		350	0	OH	
		351	0	OH	
BK - left deep freeze	5995	352	0	OH	
		353	0	OH	
		354	0	OH	
	5997	355	0	OH	
		356	0	OH	
		357	0	OH	

Virus Control	358	0-1	OH
	359	0-1	OH
	360	0	OH

Horse Ser. Undil	361	0	OH
" Control 1462 "	362	0-1	OH
	363	0	OH
" 1:10 "	364	0	OH
	365	0	OH
	366	0	OH

MAY 11 1954

Test for Type 1 Antibody in Sera of Monkeys Inoculated with "Montgomery-Mahoney" Strain + Mah. KP33-Spinal

Virus Used: Mahoney, KP35, lot 4 (Amp. No. 1) - A-4-2
Final 100 TC₅₀ / 0.2 ml in 10^{-3.5}; use 1:1600

Sera - post only; stored in carton BP - deep freeze

Culture Tubes Used:

<u>Serum Tested</u>	<u>Tube No.</u>	<u>1/2</u>	<u>1/3</u>	<u>1/5</u>
Virus control	1	0-1	3-4	4
	2	0-2	4	4
	3	0	3-4	4
Cyn 6137	4	0-1	4	4
	5	0	4	4
	6	0-2	4	4
" 6138	7	0	4	4
	8	0-1	4	4
	9	0	4	4
" 6141	10	0-1	4	4
	11	0-2	4	4
	12	0	4	4
" 6142	13	0	4	4
	14	0	4	4
	15	0	4	4
" 6145	16	0	0	4
	17	0	0	4
	18	0	0	4
" 6146	19	0	2	4
	20	0	1	4
	21	0	4	4
" 6147	22	0	4	4
	23	0	2	4
	24	0	4	4
" 6148	25	0	3-4	4
	26	0	4	4
	27	0	4	4

(over)

<u>Serum tested</u>	<u>Tube No.</u>	<u>1/2</u>	<u>1/3</u>	<u>1/5</u>
		<u>21</u>	<u>22</u>	<u>4</u>
Cyn 6149	28	0	3-4	4
	29	0	3-4	4
	30	0	+	
" 6150	31	0	4	
Serum contam.	32	0	4	
add extra per strip	33	0	4	
" 6152	34	0	4	
	35	0	4	
	36	0	4	

Cyn 6229	37	0-1	40H
102.2 - P5; K24	38	0	4
	39	0	4

Cyn 6231	40	0	4
103.2 - P5; K24	41	0	4
	42	0-1	4

Cyn 6240	43	0	4
105.2; P3; K224	44	0	4
	45	0	4

Cyn 6242	46	0	4
105.2 - P3; K24	74-47	0	2
	48	0	3-4
			0H 1H