1H7 VH alignment

Kabat Numbering	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
m1H7VH	Q	V	Q	L	Q	Q	S	G	P	E	L	V	K	P	G	T	S	V	K	I
BAC02037	Q	V	Q	L	V	Q	S	G	A	E	V	K	K	P	G	A	S	V	K	V
Hu1H7VHv1	Q	V	Q	L	V	Q	S	G	A	E	L	K	K	P	G	A	S	V	K	V
Hu1H7VHv2	Q	V	Q	L	V	Q	S	G	A	E	V	K	K	P	G	A	S	V	K	V
Hu1H7VHv3	Q	V	Q	L	V	Q	S	G	A	E	V	K	K	P	G	A	S	V	K	V
Hu1H7VHv4	Q	V	Q	L	V	Q	S	G	A	E	V	K	K	P	G	A	S	V	K	V
Hu1H7VHv5	Q	V	Q	L	V	Q	S	G	A	E	V	K	K	P	G	A	S	V	K	V

Kabat Numbering	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
m1H7VH	S	C	K	A	S	G	Y	S	F	T	***S***	***Y***	***Y***	***I***	***H***	W	V	K	Q	S
BAC02037	S	C	K	A	S	G	Y	T	F	T	***S***	***F***	***G***	***I***	***S***	W	V	R	Q	A
Hu1H7VHv1	S	C	K	A	S	G	Y	S	F	T	***S***	***Y***	***Y***	***I***	***H***	W	V	K	Q	A
Hu1H7VHv2	S	C	K	A	S	G	Y	S	F	T	***S***	***Y***	***Y***	***I***	***H***	W	V	R	Q	A
Hu1H7VHv3	S	C	K	A	S	G	Y	T	F	T	***S***	***Y***	***Y***	***I***	***H***	W	V	R	Q	A
Hu1H7VHv4	S	C	K	A	S	G	Y	S	F	T	***S***	***Y***	***Y***	***I***	***H***	W	V	R	Q	A
Hu1H7VHv5	S	C	K	A	S	G	Y	T	F	T	***S***	***Y***	***Y***	***I***	***H***	W	V	R	Q	A

Kabat Numbering	41	42	43	44	45	46	47	48	49	50	51	52	52A	53	54	55	56	57	58	59
m1H7VH	P	G	Q	G	L	E	W	I	G	***W***	***I***	***Y***	***P***	***G***	***S***	***G***	***N***	***T***	***K***	***Y***
BAC02037	P	G	Q	G	L	E	W	M	G	***W***	***I***	***S***	***P***	***Y***	***N***	***G***	***D***	***T***	***N***	***Y***
Hu1H7VHv1	P	G	Q	G	L	E	W	I	G	***W***	***I***	***Y***	***P***	***G***	***S***	***G***	***N***	***T***	***K***	***Y***
Hu1H7VHv2	P	G	Q	G	L	E	W	I	G	***W***	***I***	***Y***	***P***	***G***	***S***	***G***	***N***	***T***	***K***	***Y***
Hu1H7VHv3	P	G	Q	G	L	E	W	M	G	***W***	***I***	***Y***	***P***	***G***	***S***	***G***	***N***	***T***	***K***	***Y***
Hu1H7VHv4	P	G	Q	G	L	E	W	I	G	***W***	***I***	***Y***	***P***	***G***	***S***	***G***	***N***	***T***	***K***	***Y***
Hu1H7VHv5	P	G	Q	G	L	E	W	M	G	***W***	***I***	***Y***	***P***	***G***	***S***	***G***	***N***	***T***	***K***	***Y***

FIG. 1A

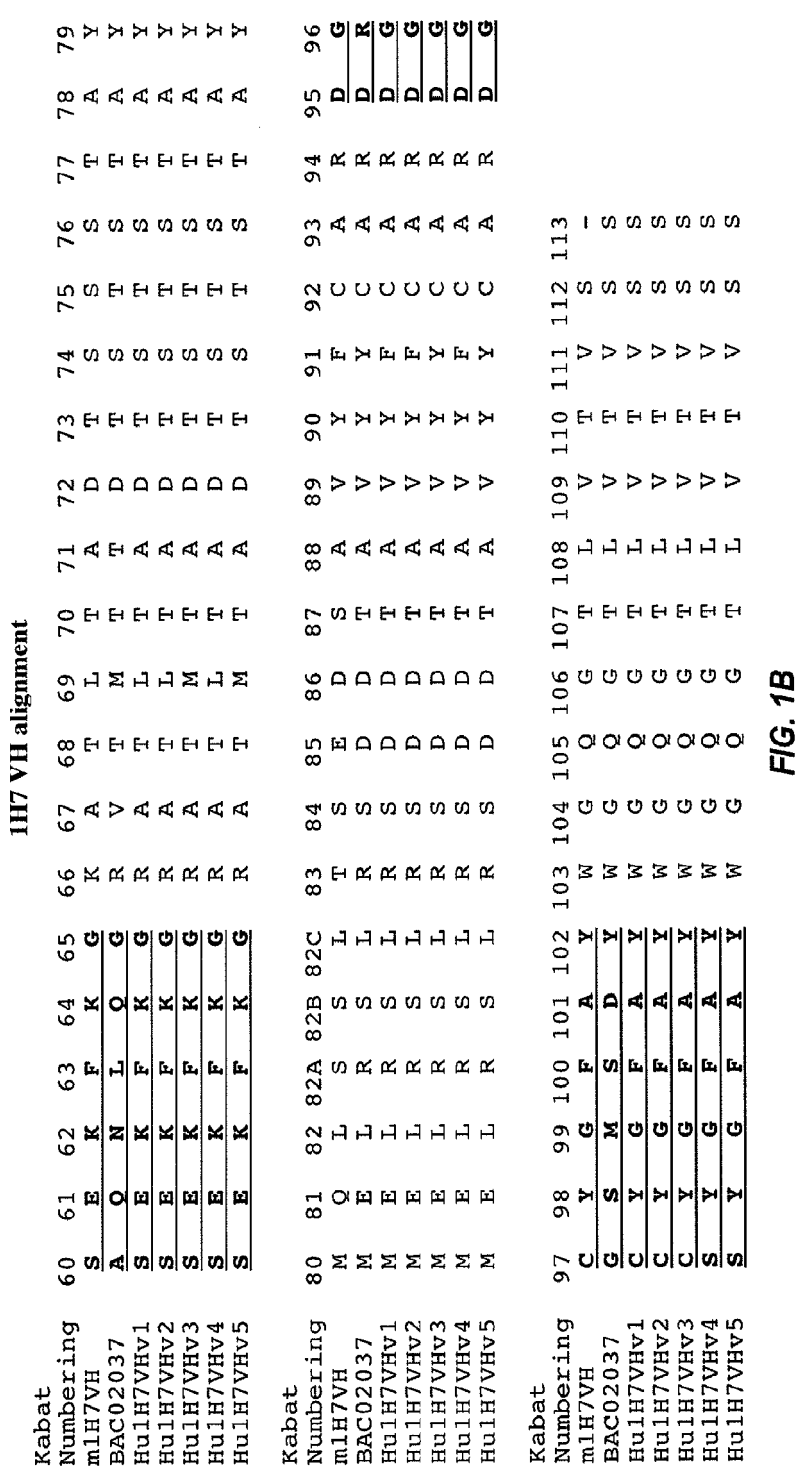

1H7 VH alignment
Kabat Numbering 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79
m1H7VH S E K F K G K A T L T A D T S S S T A Y
BAC02037 A Q N L Q G R V T M T T D T S S T S T A Y
Hu1H7VHv1 S E K F K G R A T L T A D T S S T S T A Y
Hu1H7VHv2 S E K F K G R A T L T A D T S S T S T A Y
Hu1H7VHv3 S E K F K G R A T M T A D T S S T S T A Y
Hu1H7VHv4 S E K F K G R A T L T A D T S S T S T A Y
Hu1H7VHv5 S E K F K G R A T M T A D T S S T S T A Y
Kabat Numbering 80 81 82 82A 82B 82C 83 84 85 86 87 88 89 90 91 92 93 94 95 96
m1H7VH M Q L S S L T S E D S A V Y Y F C A R D G
BAC02037 M E L R S L R S D D T A V Y Y F C A R D R
Hu1H7VHv1 M E L R S L R S D D T A V Y Y F C A R D G
Hu1H7VHv2 M E L R S L R S D D T A V Y Y F C A R D G
Hu1H7VHv3 M E L R S L R S D D T A V Y Y F C A R D G
Hu1H7VHv4 M E L R S L R S D D T A V Y Y F C A R D G
Hu1H7VHv5 M E L R S L R S D D T A V Y Y F C A R D G
Kabat Numbering 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113
m1H7VH C Y G F A Y W G Q G T L V T V S S -
BAC02037 G S M S D Y W G Q G T L V T V S S
Hu1H7VHv1 C Y G F A Y W G Q G T L V T V S S
Hu1H7VHv2 C Y G F A Y W G Q G T L V T V S S
Hu1H7VHv3 C Y G F A Y W G Q G T L V T V S S
Hu1H7VHv4 S Y G F A Y W G Q G T L V T V S S
Hu1H7VHv5 S Y G F A Y W G Q G T L V T V S S

FIG. 1B

1H7 VH alignment

Kabat Numbering	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
m1H7VL	D	I	V	L	T	Q	S	P	A	S	L	A	V	S	L	G	Q	R	A	T
AAY33358	D	I	Q	L	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T
Hu1H7VLv1	D	I	Q	L	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T
Hu1H7VLv2	D	I	Q	L	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T
Hu1H7VLv3	D	I	Q	L	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T
Hu1H7VLv4	D	I	Q	L	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T

Kabat Numbering	21	22	23	24	25	26	27	27A	27B	27C	27D	28	29	30	31	32	33	34	35	36
m1H7VL	I	S	C	K	A	S	Q	S	V	D	Y	D	G	D	S	Y	M	N	W	Y
AAY33358	I	T	C	R	A	S	Q	-	-	-	-	G	I	R	N	D	L	G	W	Y
Hu1H7VLv1	I	T	C	K	A	S	Q	S	V	D	Y	D	G	D	S	Y	M	N	W	Y
Hu1H7VLv2	I	T	C	K	A	S	Q	S	V	D	Y	D	G	D	S	Y	M	N	W	Y
Hu1H7VLv3	I	T	C	K	A	S	Q	S	V	D	Y	D	G	D	S	Y	M	N	W	Y
Hu1H7VLv4	I	T	C	K	A	S	Q	S	V	D	Y	D	G	D	S	Y	M	N	W	Y

Kabat Numbering	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
m1H7VL	Q	Q	K	P	G	Q	P	P	K	F	L	I	C	A	A	S	N	L	E	S
AAY33358	Q	Q	K	P	G	K	A	P	K	L	L	I	Y	A	A	S	S	L	Q	S
Hu1H7VLv1	Q	Q	K	P	G	K	A	P	K	F	L	I	C	A	A	S	N	L	E	S
Hu1H7VLv2	Q	Q	K	P	G	K	A	P	K	F	L	I	Y	A	A	S	N	L	E	S
Hu1H7VLv3	Q	Q	K	P	G	K	A	P	K	F	L	I	C	A	A	S	N	L	E	S
Hu1H7VLv4	Q	Q	K	P	G	K	A	P	K	F	L	I	Y	A	A	S	N	L	E	S

FIG. 2A

1H7 VH alignment

Kabat Numbering	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76
m1H7VL	G	I	P	A	R	F	S	G	S	G	S	G	T	D	F	T	L	N	I	H
AAY33358	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	I	S
Hu1H7VLv1	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	I	S
Hu1H7VLv2	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	I	S
Hu1H7VLv3	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	I	S
Hu1H7VLv4	G	V	P	S	R	F	S	G	S	G	S	G	T	D	F	T	L	T	I	S

Kabat Numbering	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
m1H7VL	P	V	E	E	E	D	A	A	T	Y	Y	C	L	Q	S	N	E	D	P	F
AAY33358	S	L	Q	P	E	D	F	A	T	Y	Y	C	L	Q	D	Y	N	Y	P	F
Hu1H7VLv1	S	L	Q	P	E	D	A	A	T	Y	Y	C	Q	Q	S	N	E	D	P	F
Hu1H7VLv2	S	L	Q	P	E	D	A	A	T	Y	Y	C	Q	Q	S	N	E	D	P	F
Hu1H7VLv3	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	N	E	D	P	F
Hu1H7VLv4	S	L	Q	P	E	D	F	A	T	Y	Y	C	Q	Q	S	N	E	D	P	F

Kabat Numbering	97	98	99	100	101	102	103	104	105	106	107
m1H7VL	H	F	G	S	G	T	K	L	E	I	K
AAY33358	H	F	G	Q	G	T	K	L	E	I	K
Hu1H7VLv1	H	F	G	Q	G	T	K	L	E	I	K
Hu1H7VLv2	H	F	G	Q	G	T	K	L	E	I	K
Hu1H7VLv3	H	F	G	Q	G	T	K	L	E	I	K
Hu1H7VLv4	H	F	G	Q	G	T	K	L	E	I	K

FIG. 2B

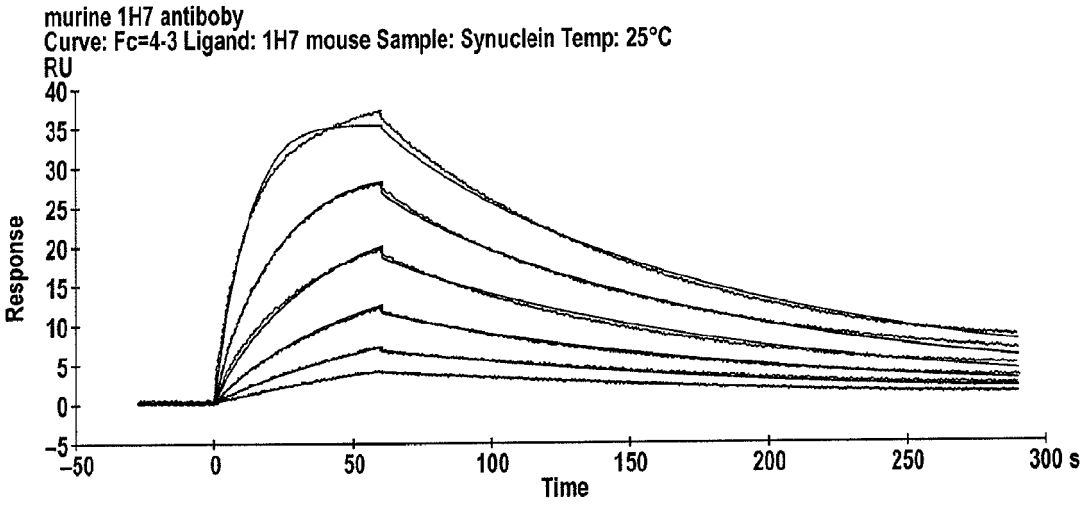


FIG. 3A

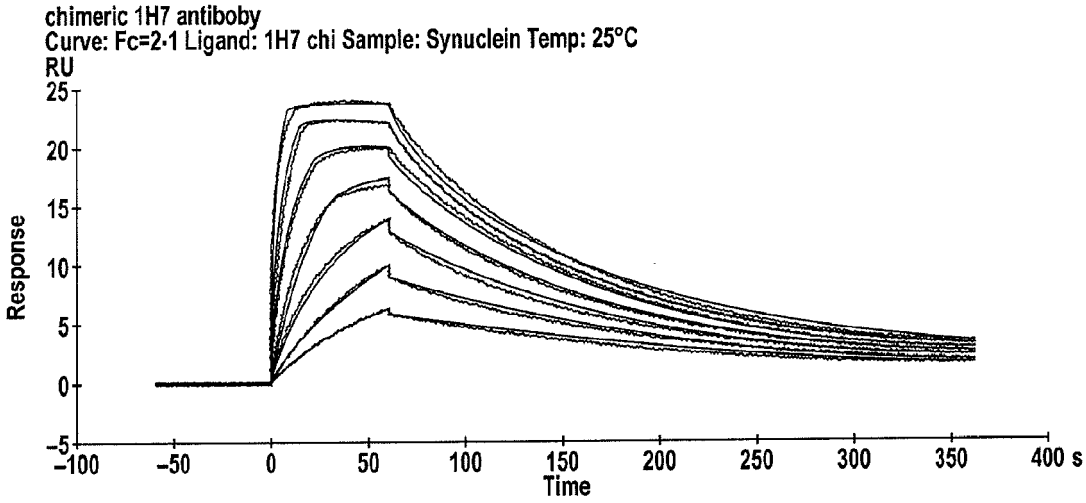


FIG. 3B

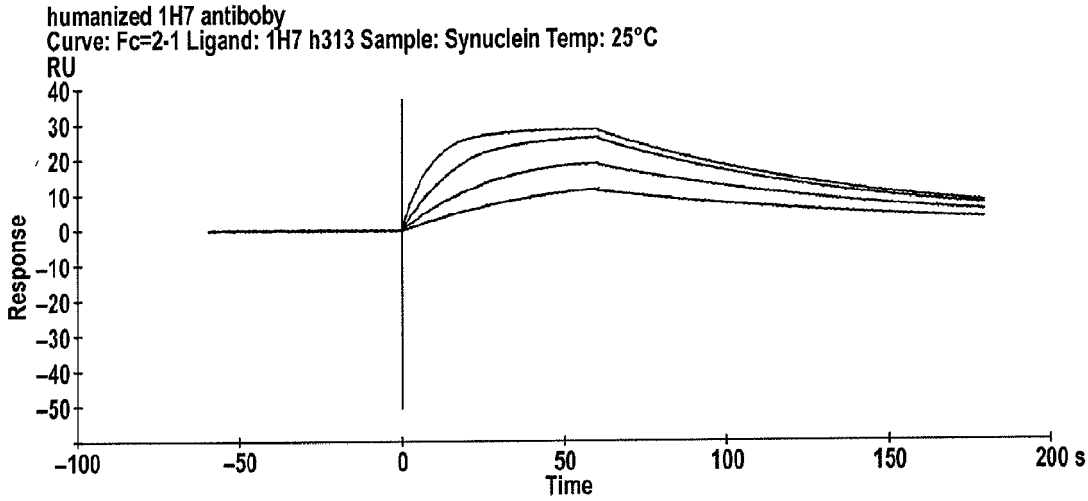


FIG. 3B

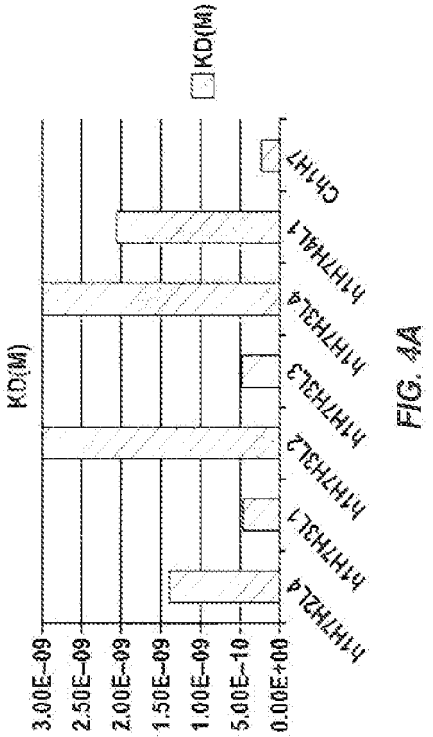


FIG. 4A

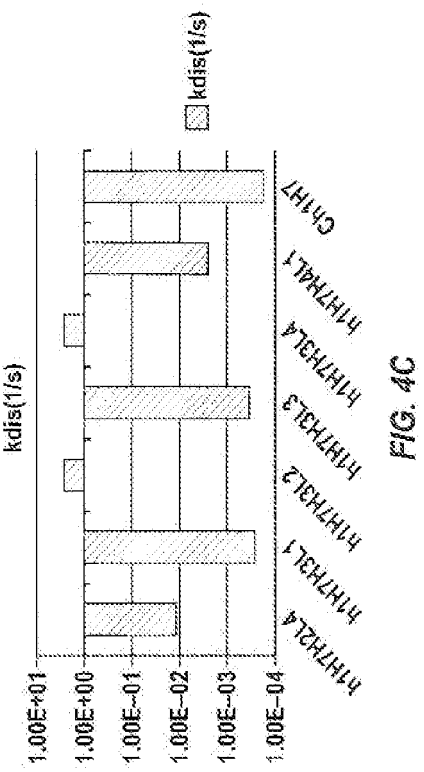


FIG. 4C

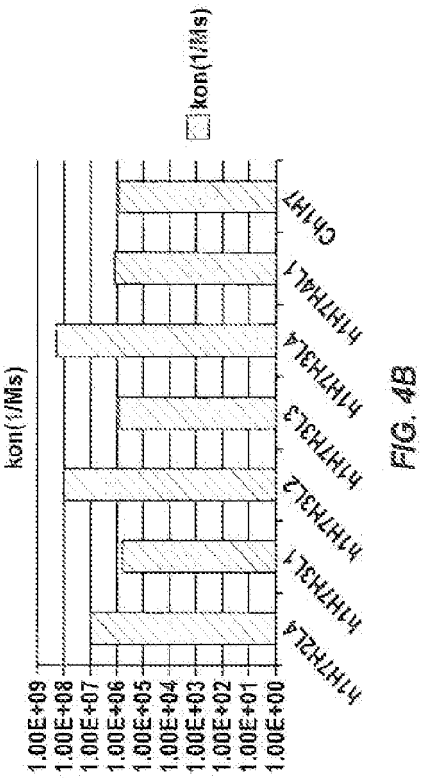


FIG. 4B

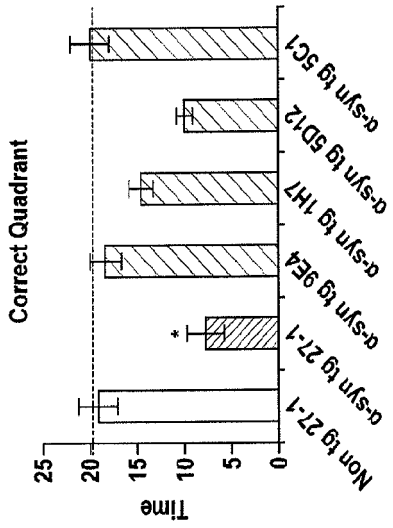
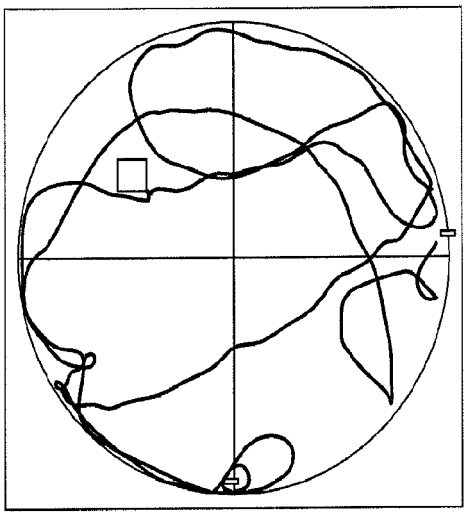

Correct Quadrant
Time
25
20
15
10
5
0
Non tg 27-1
α-syn tg 27-1
α-syn tg 9E4
α-syn tg 1H7
α-syn tg 5D12
α-syn tg 5C1
*

FIG. 5



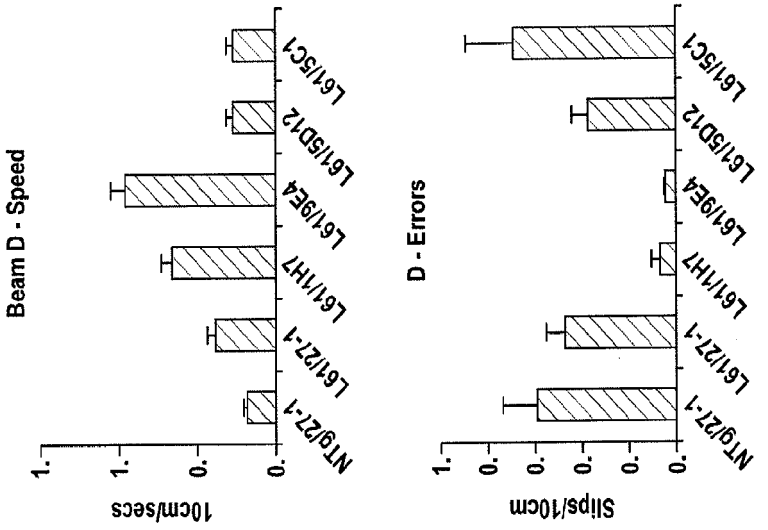

Beam D - Speed
10cm/secs
1.
1.
0.
0.
NTg/Z7-1
L61/Z7-1
L61/1H7
L61/9E4
L61/5D12
L61/5C1
D - Errors
Slips/10cm
1.
0.
0.
0.
0.
0.
NTg/Z7-1
L61/Z7-1
L61/1H7
L61/9E4
L61/5D12
L61/5C1

FIG. 6

