

1/38

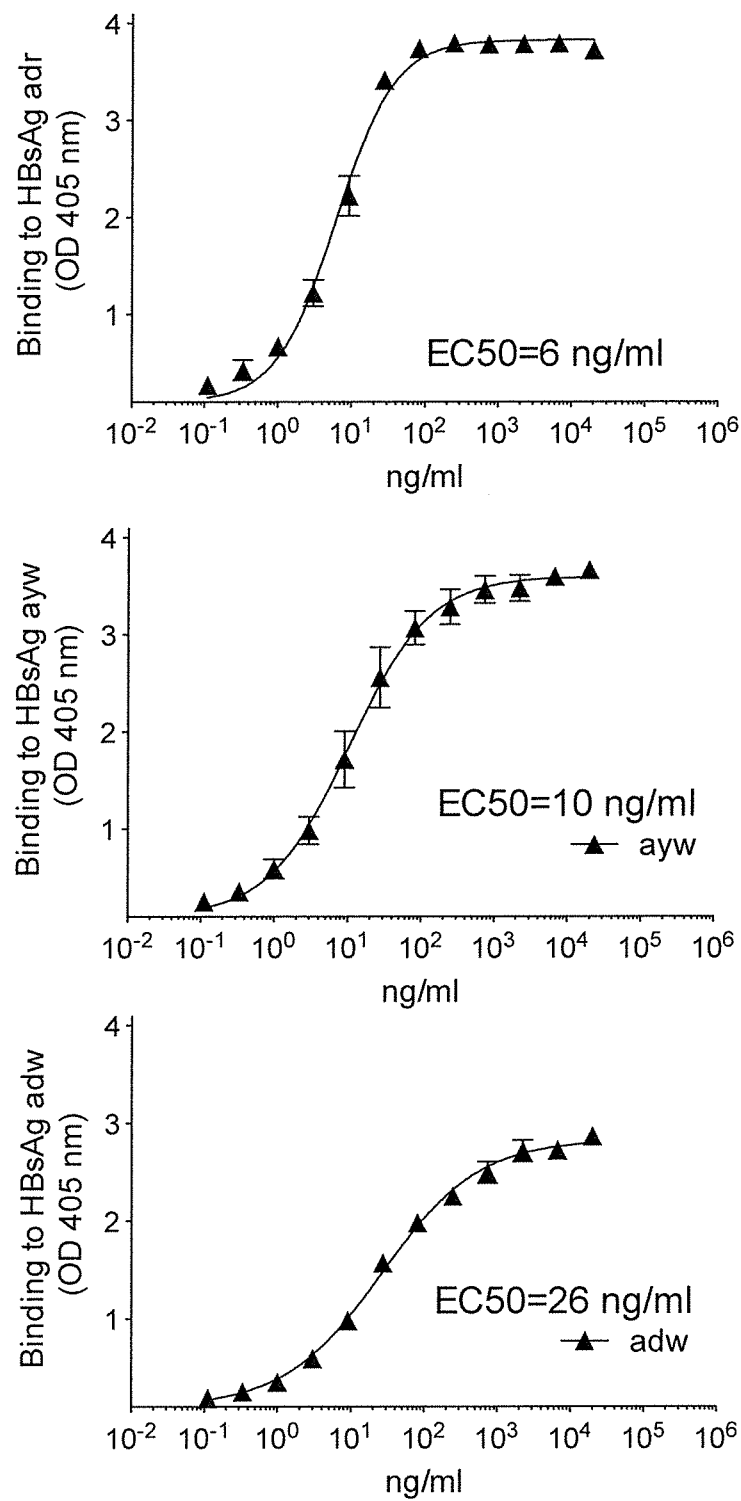


Figure 1

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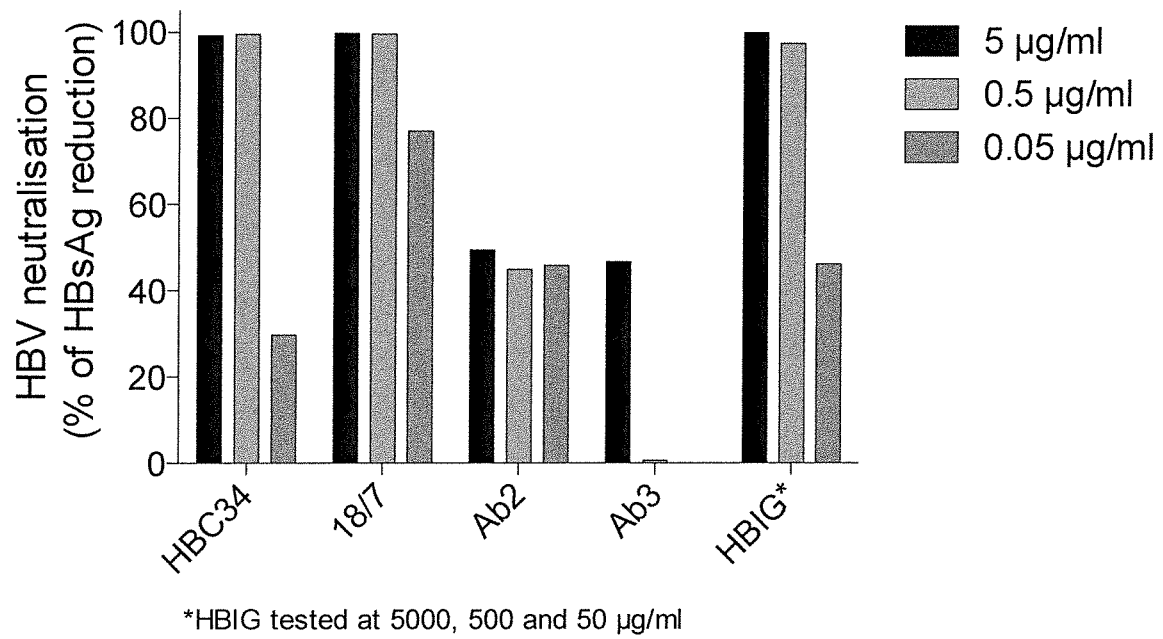


Figure 2

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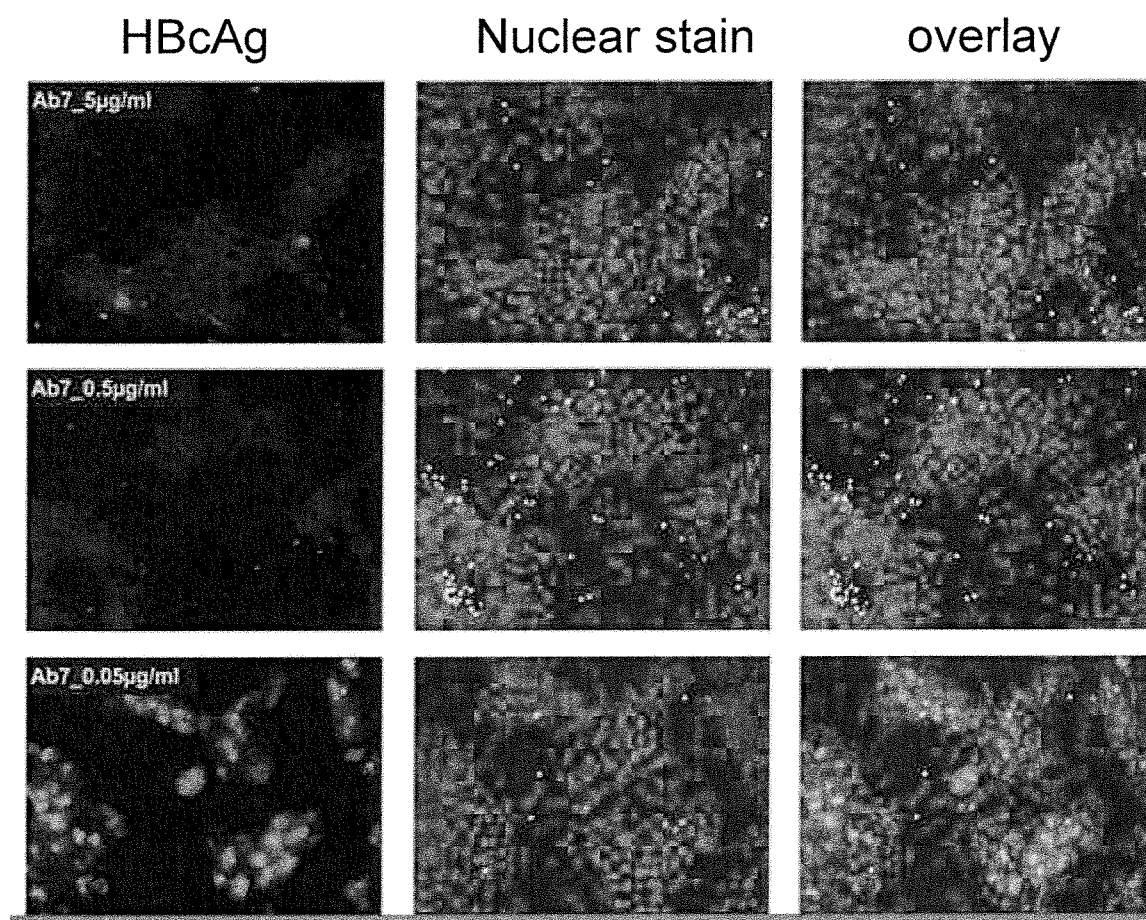


Figure 3

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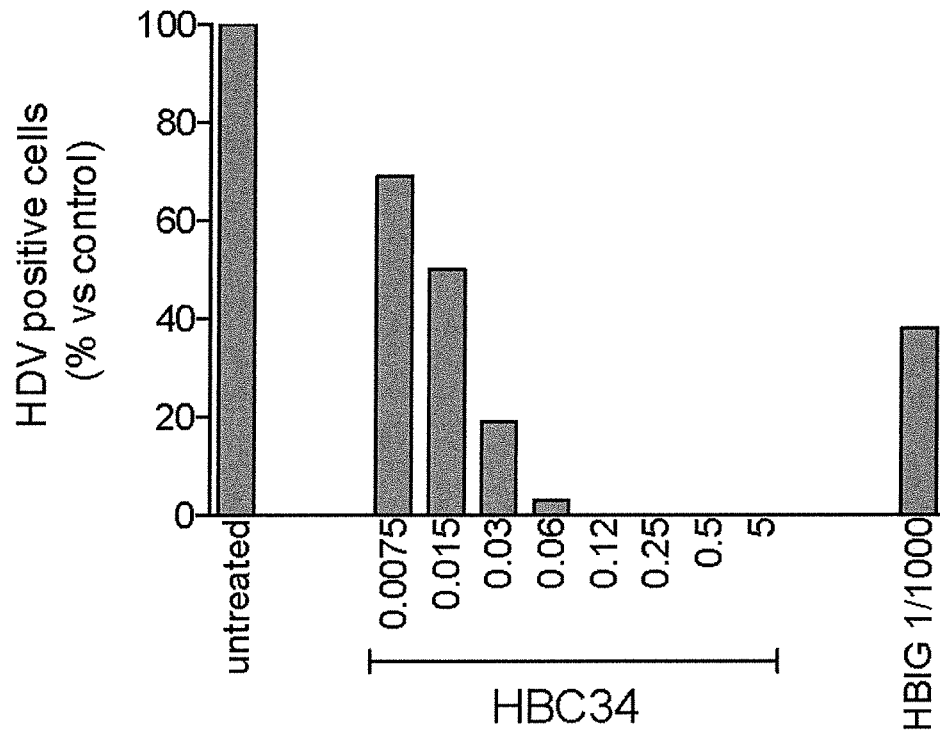


Figure 4

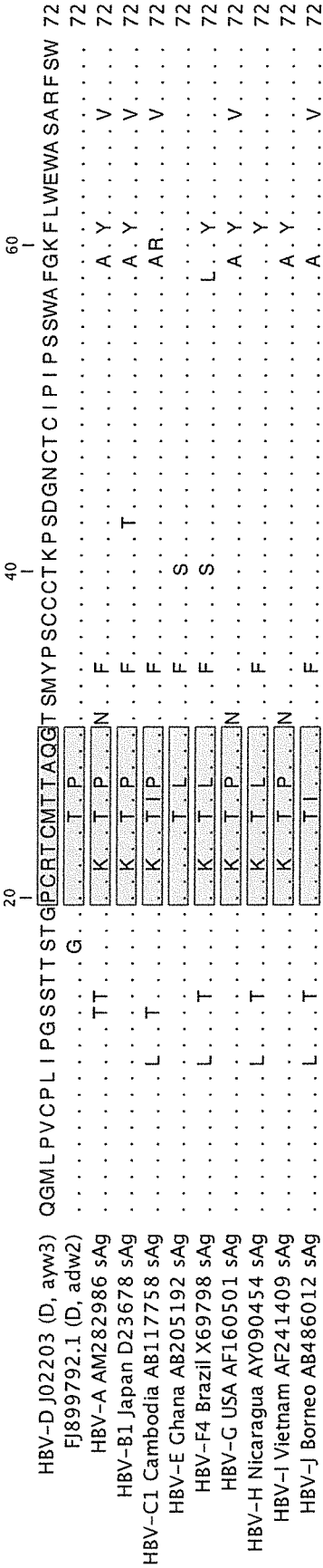


Figure 5

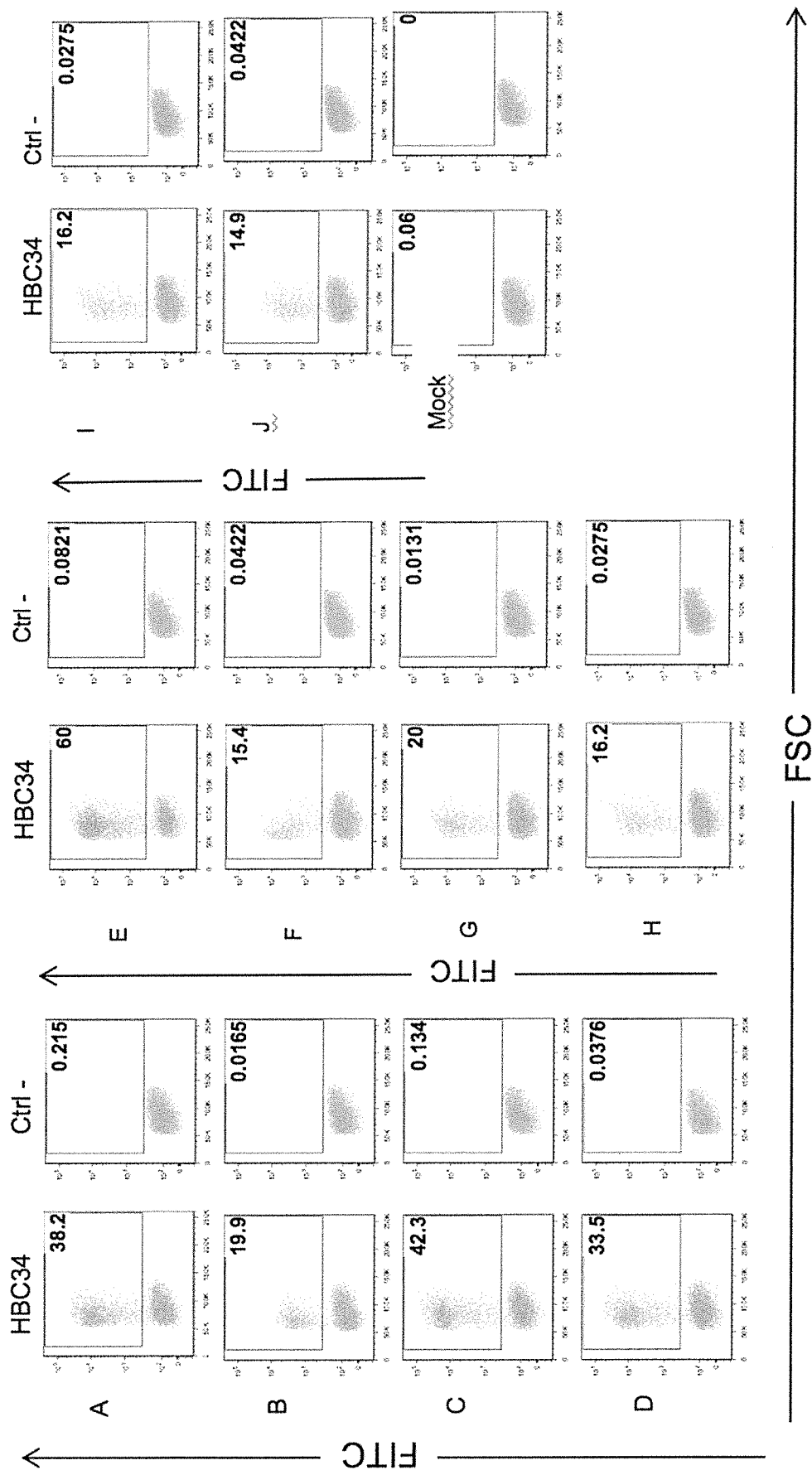


Figure 6

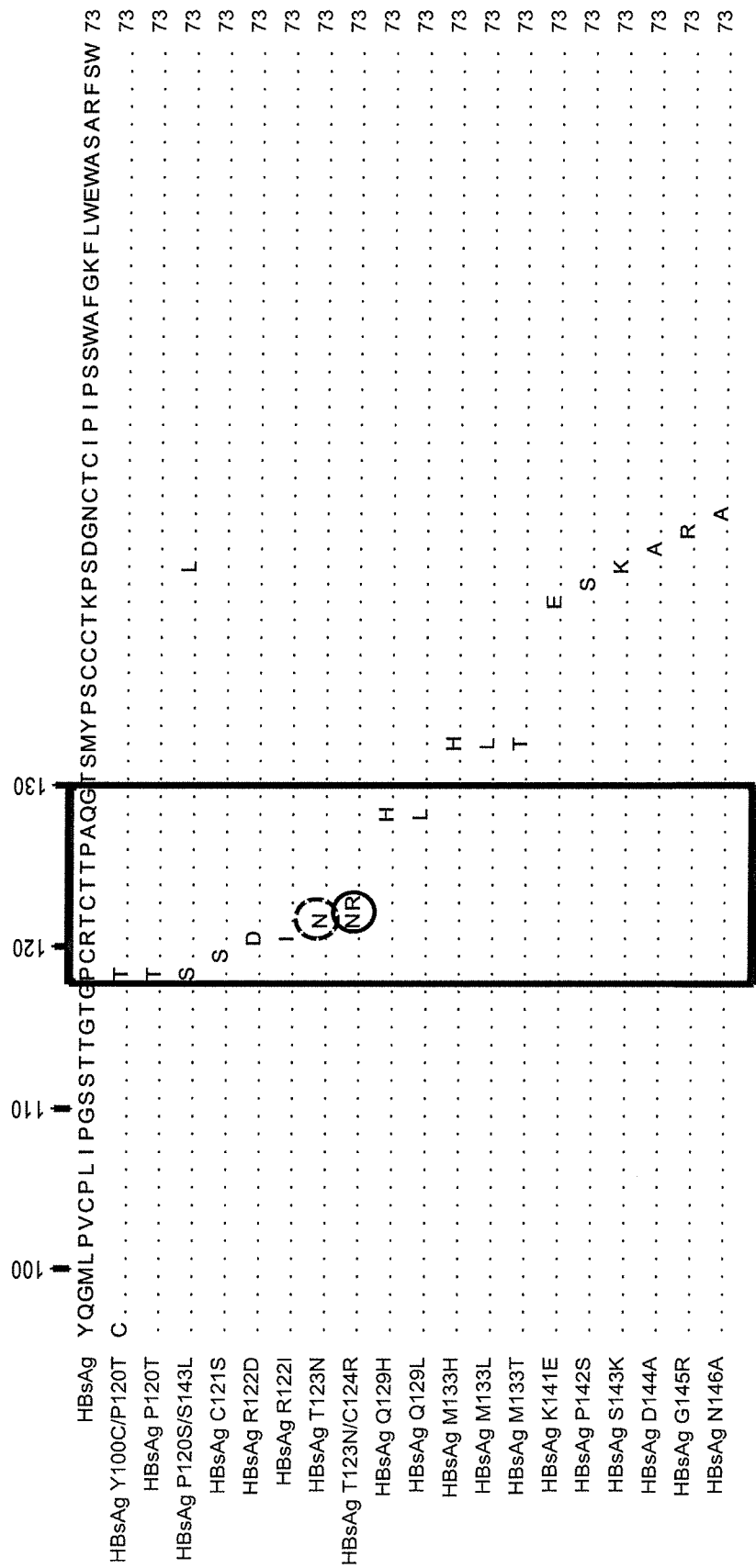
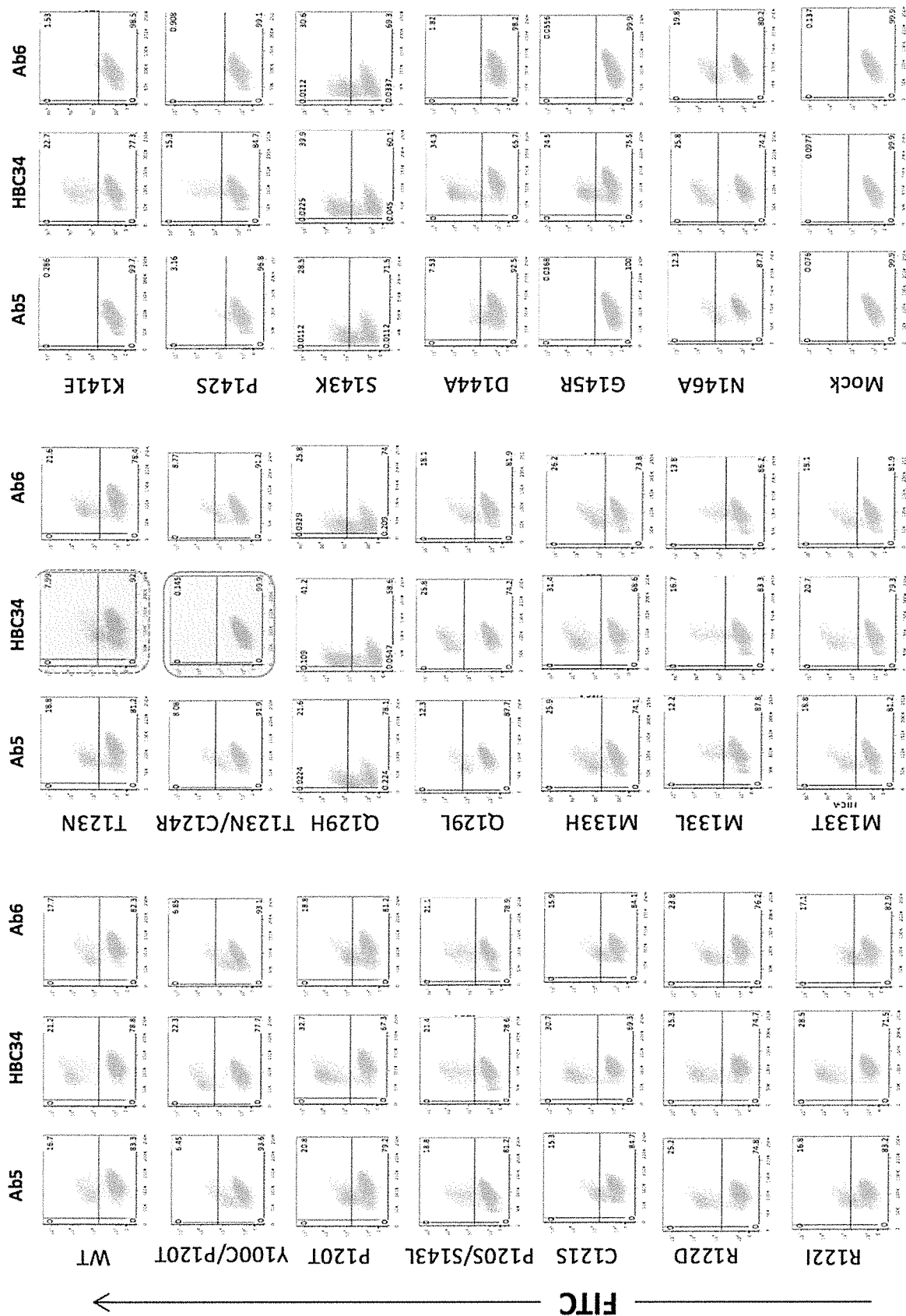


Figure 7



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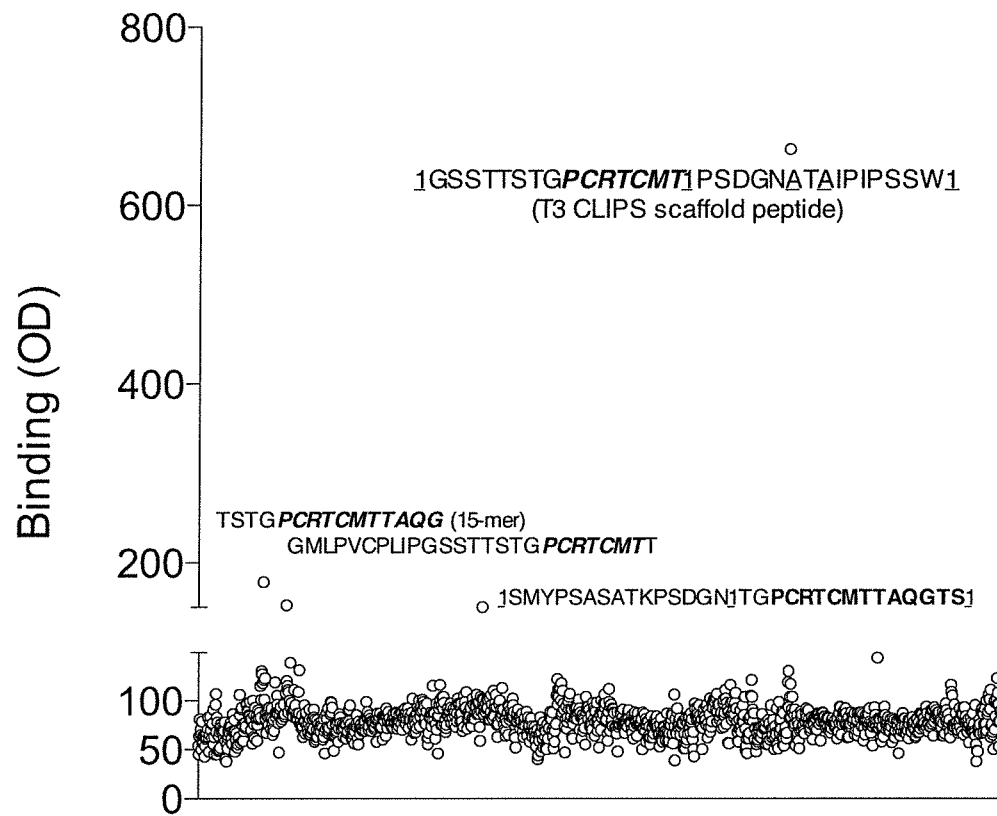


Figure 9

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mab 8 7

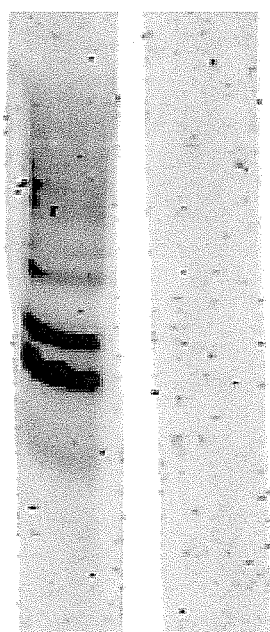


Figure 10

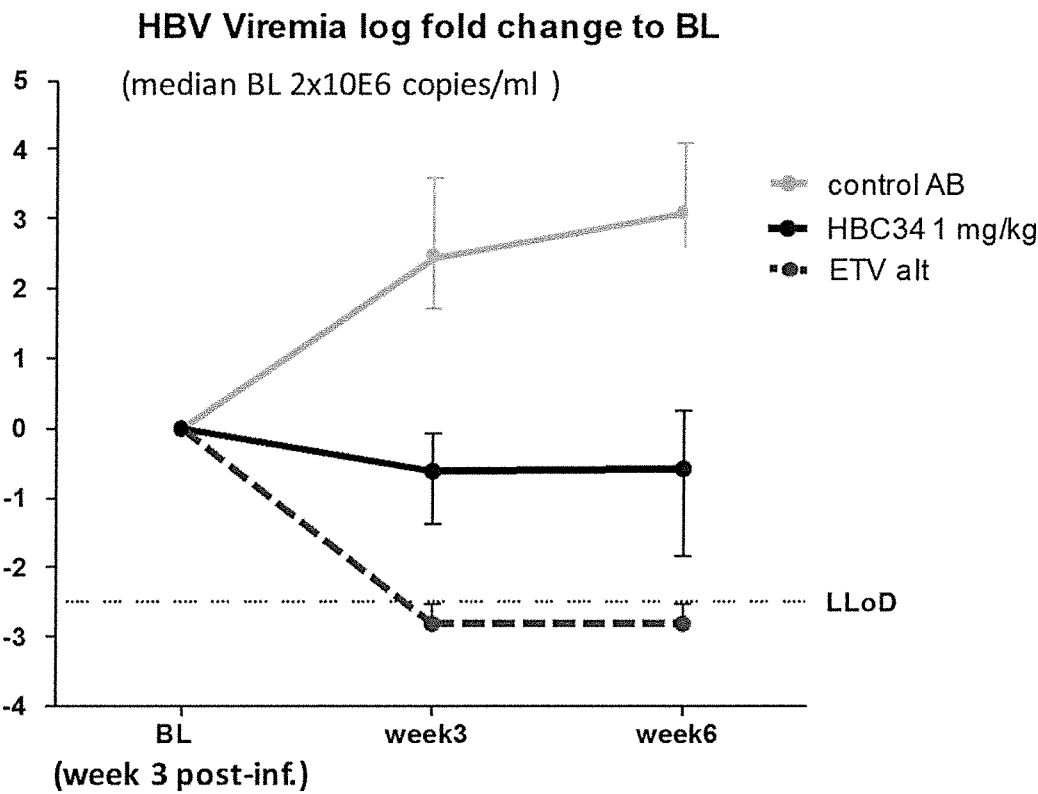


Figure 11

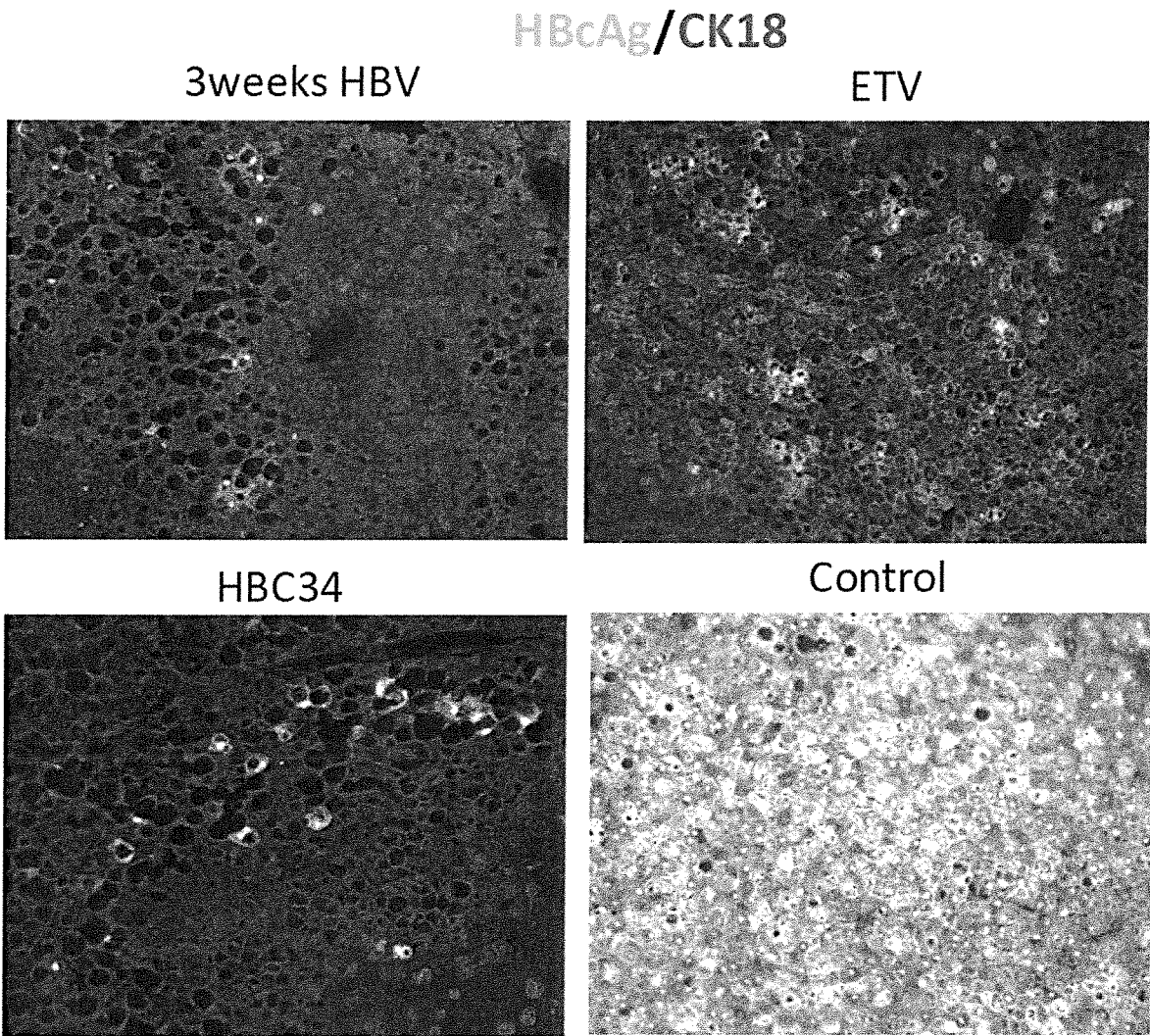


Figure 12

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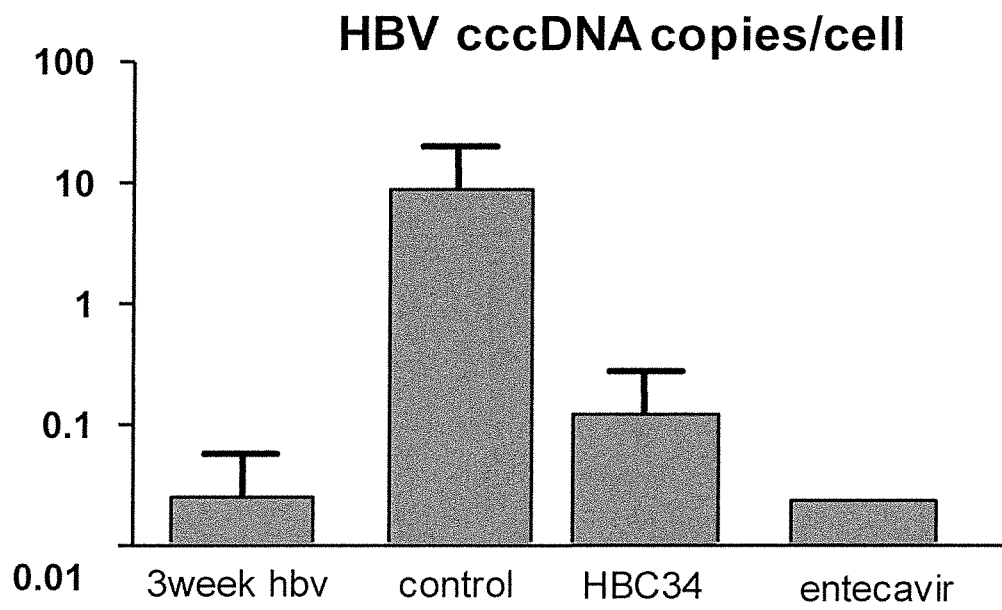


Figure 13

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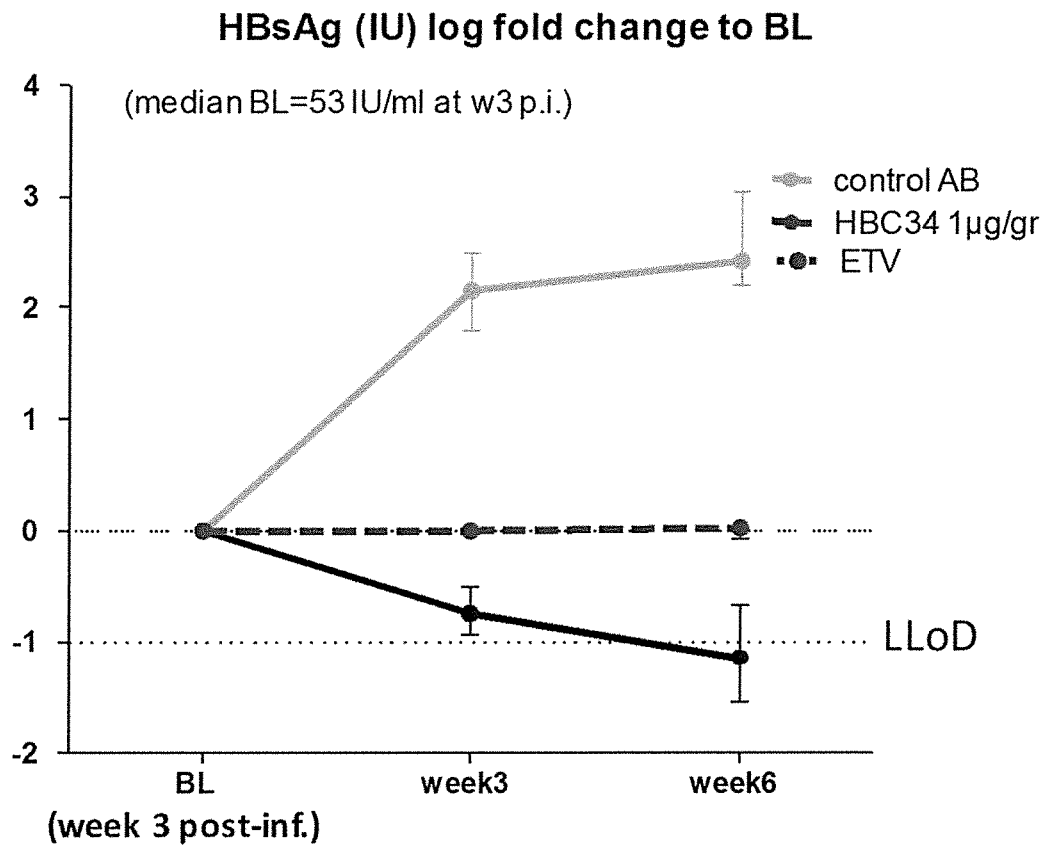


Figure 14

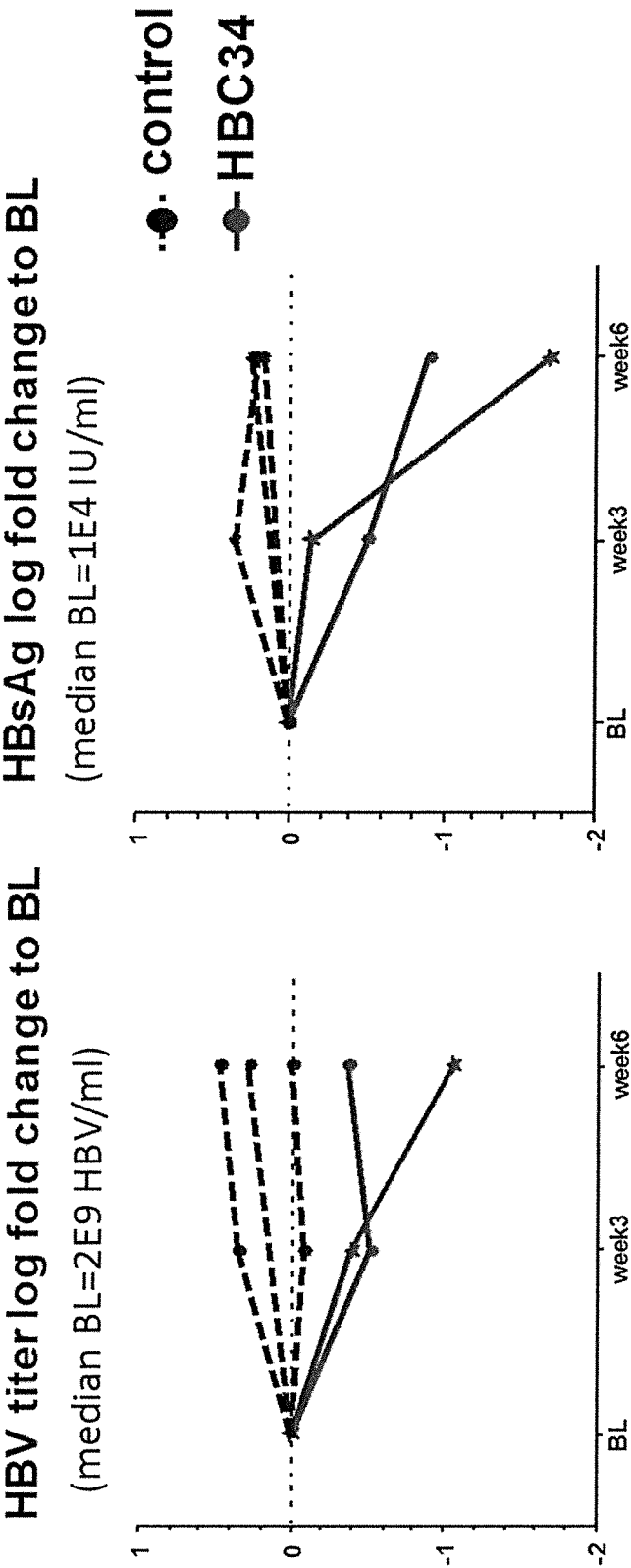


Figure 15

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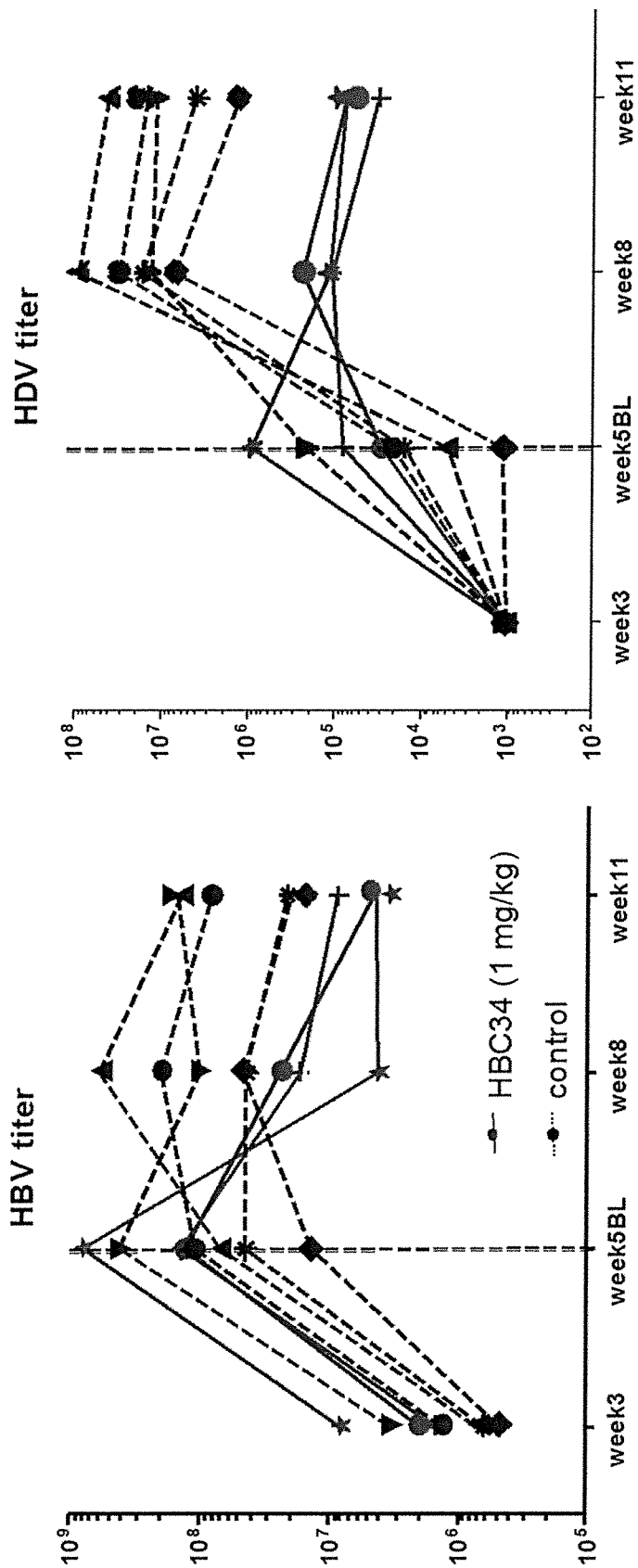


Figure 16

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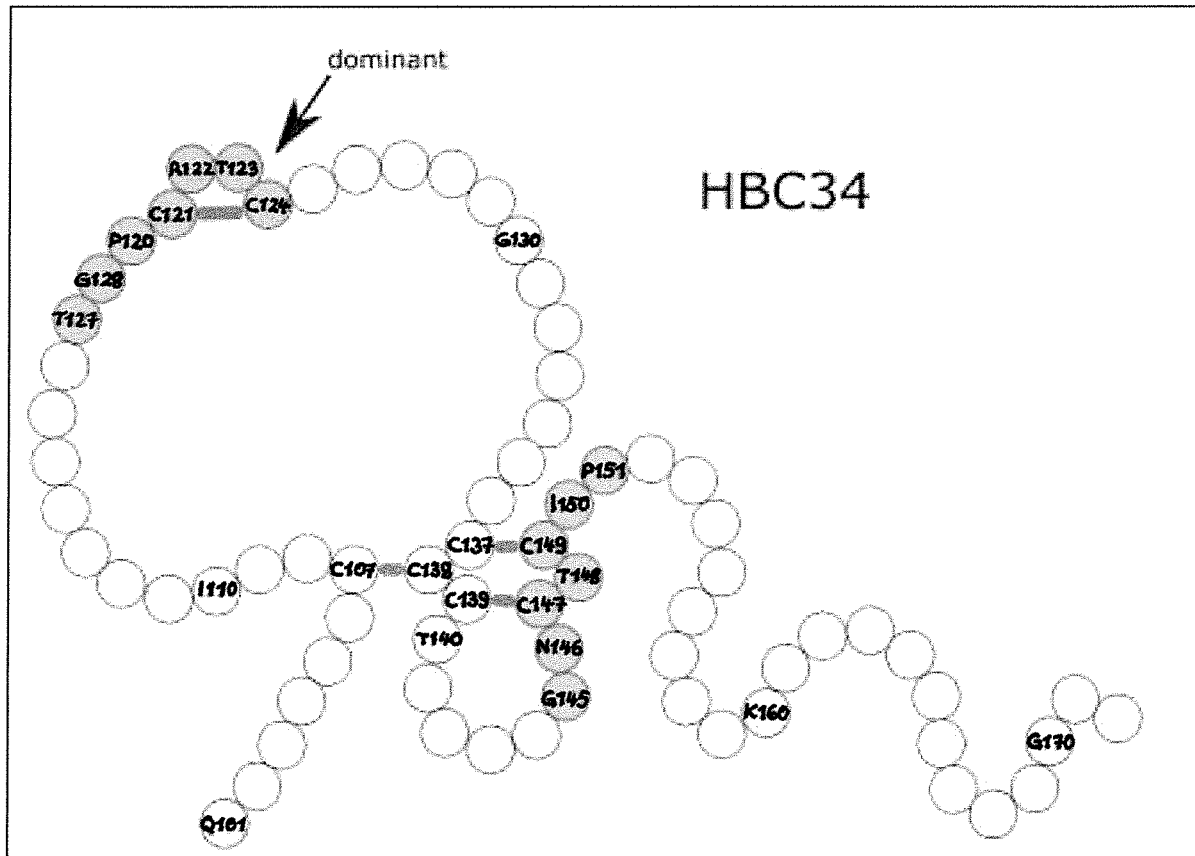


Figure 17

Set 13 (MAT.A)

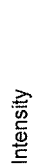


Figure 17 (continued)

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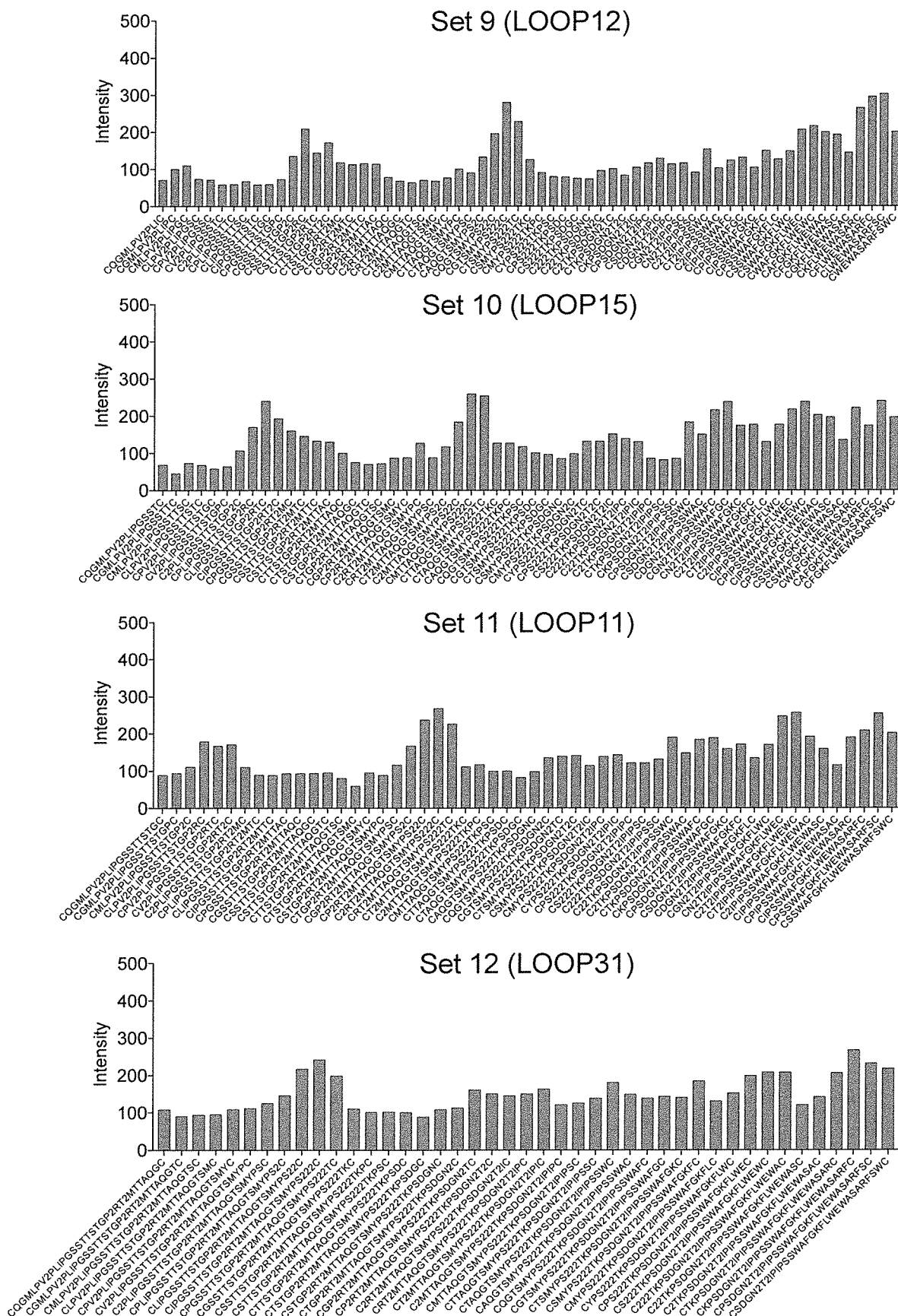


Figure 17 (continued)

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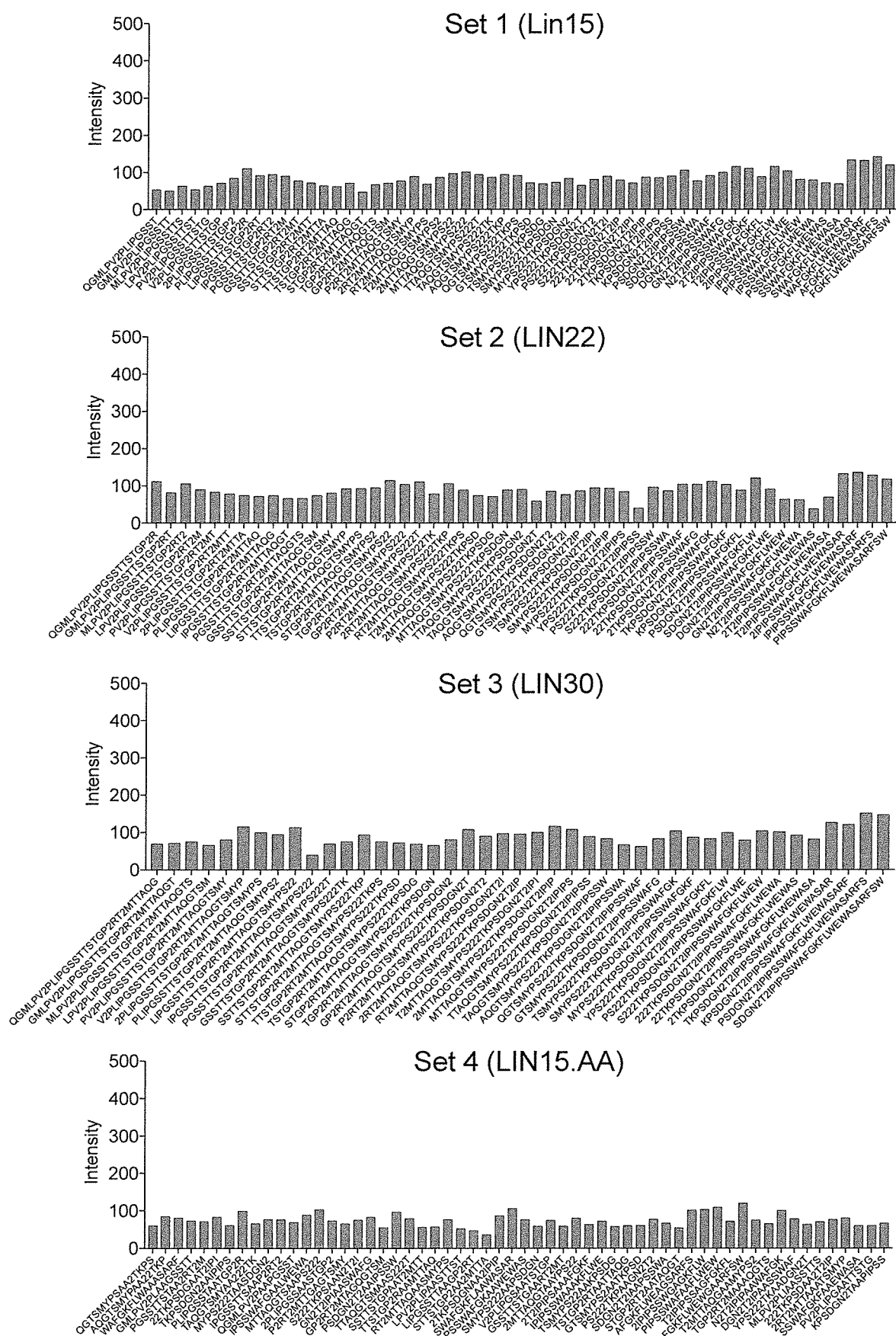
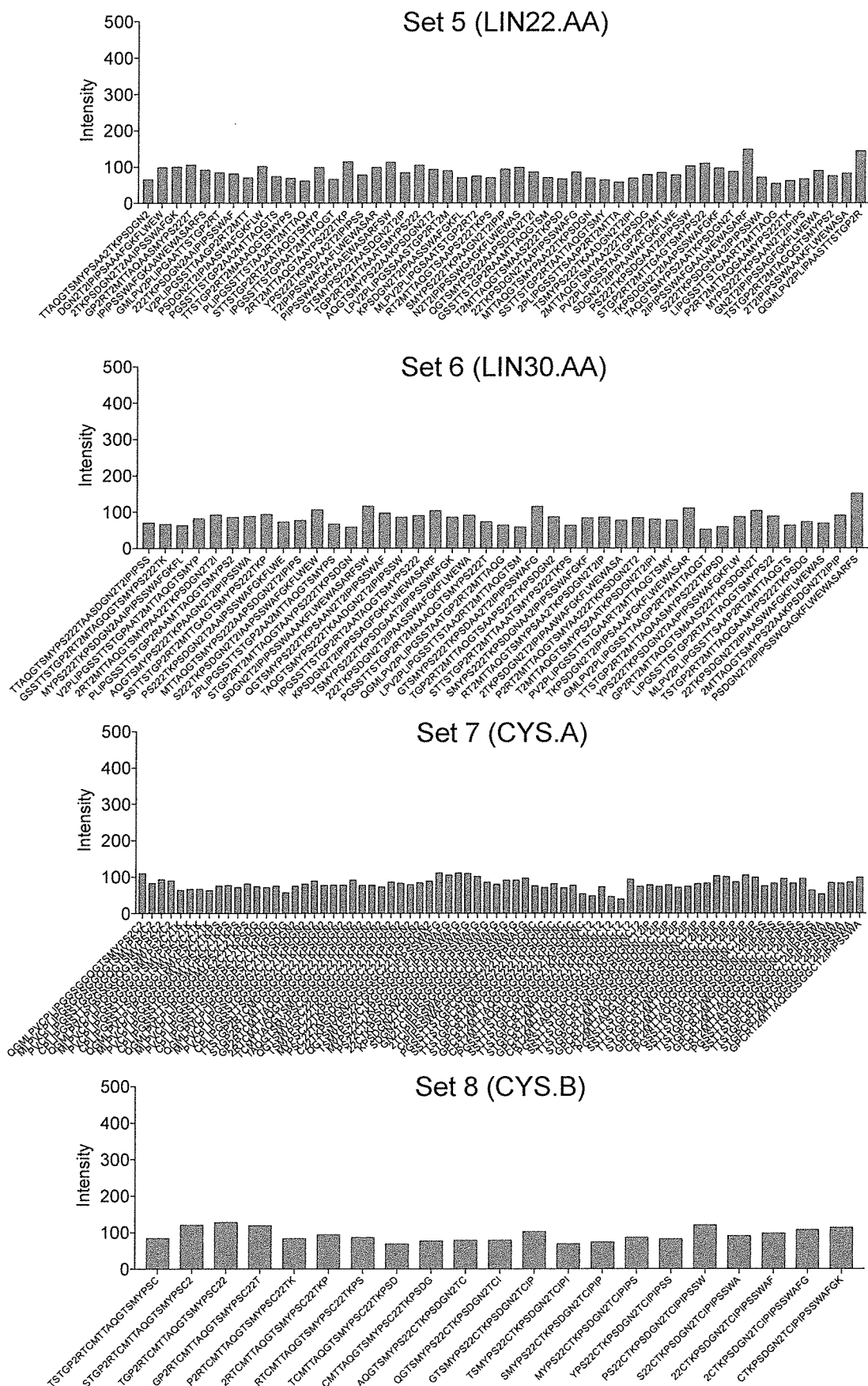


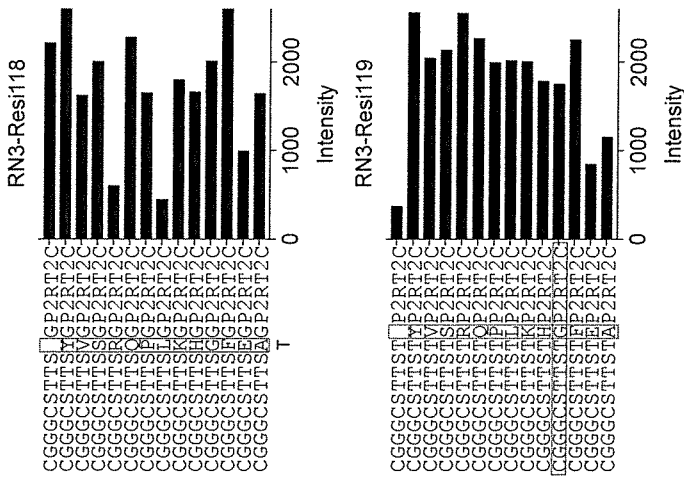
Figure 17 (continued)

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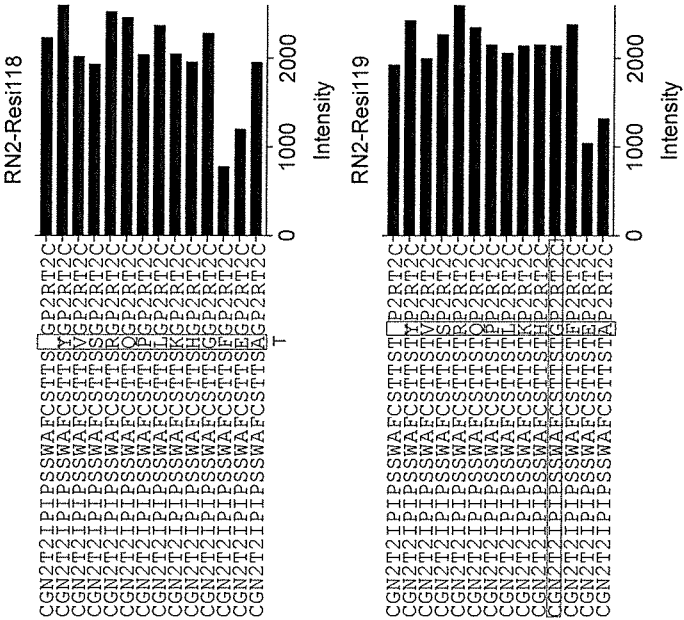


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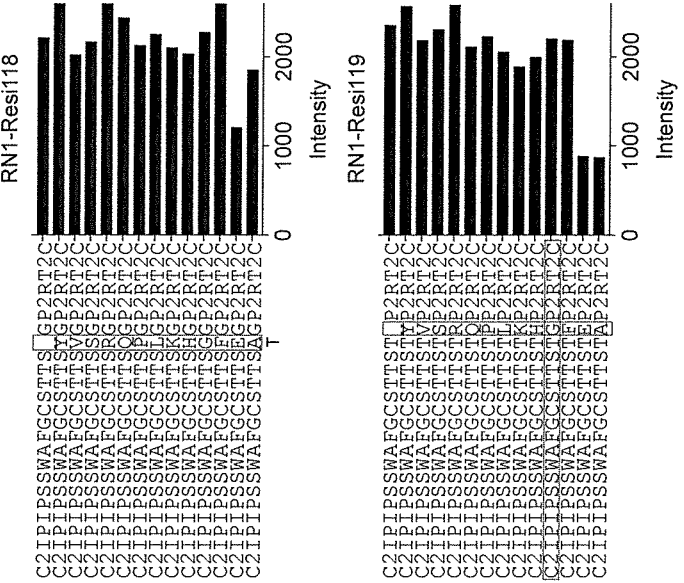
RN3



RN2



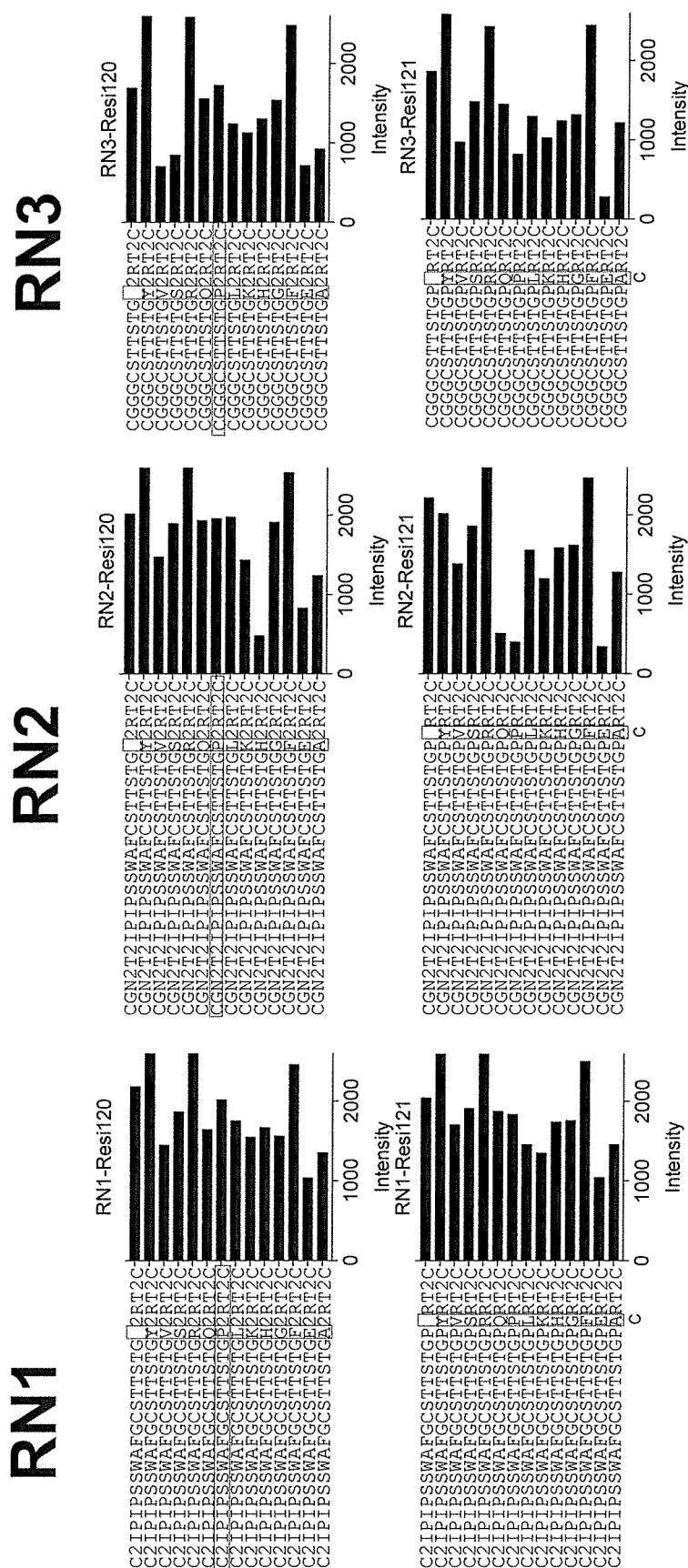
RN1



T G

Figure 18

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RN2

RN1

Figure 18 (continued)

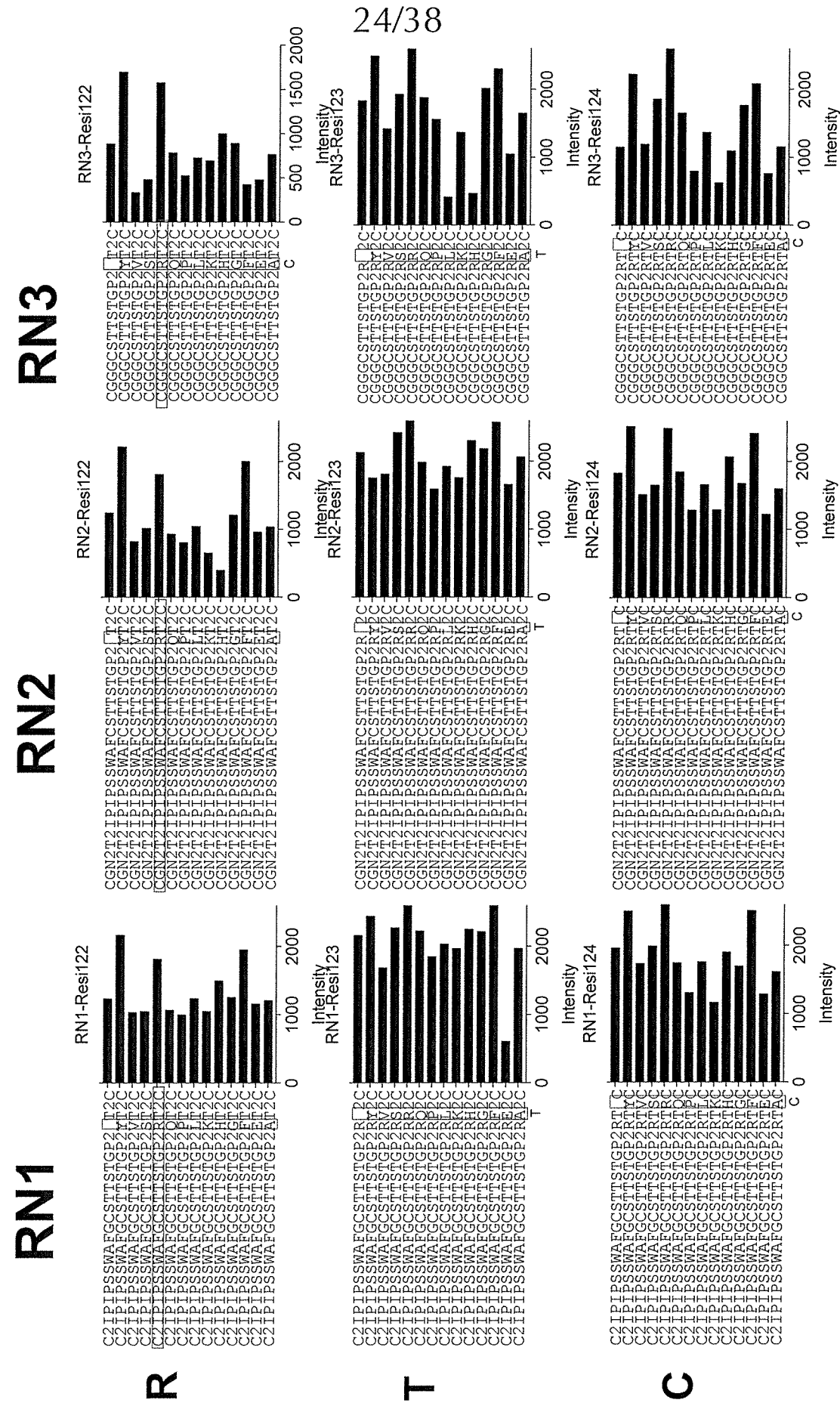


Figure 18 (continued)

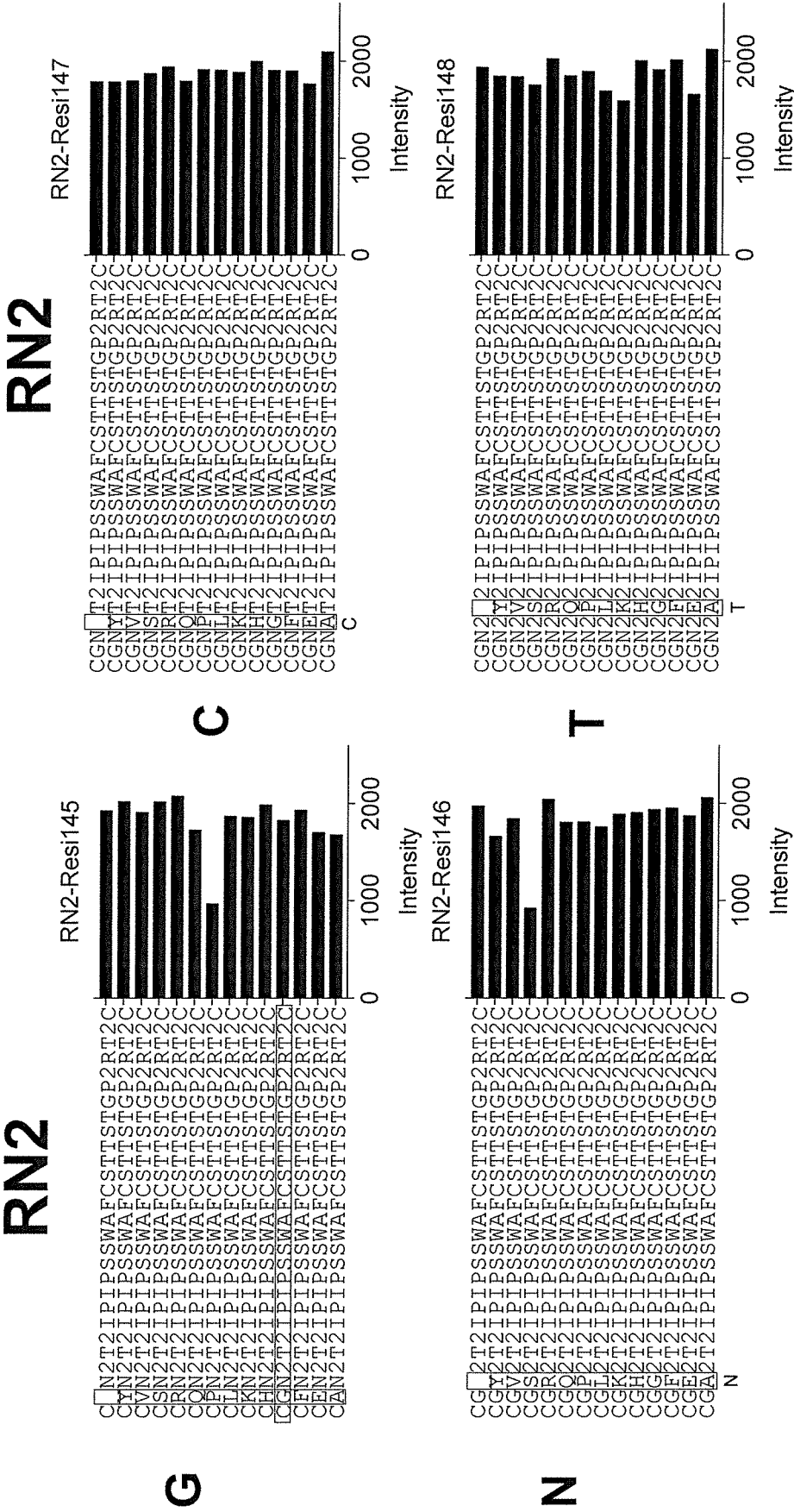


Figure 18 (continued)



Figure 18 (continued)

RN2

RN1

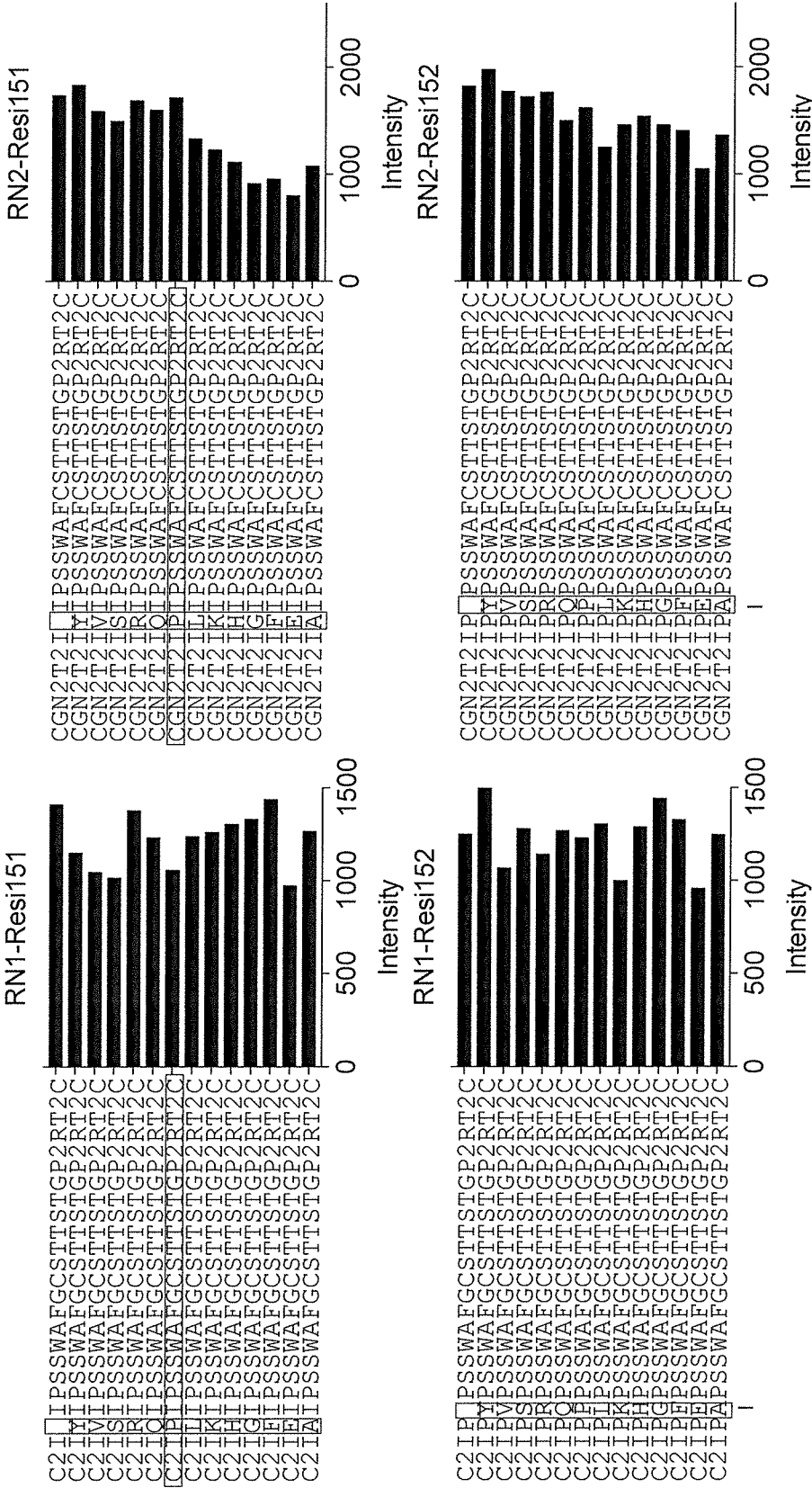
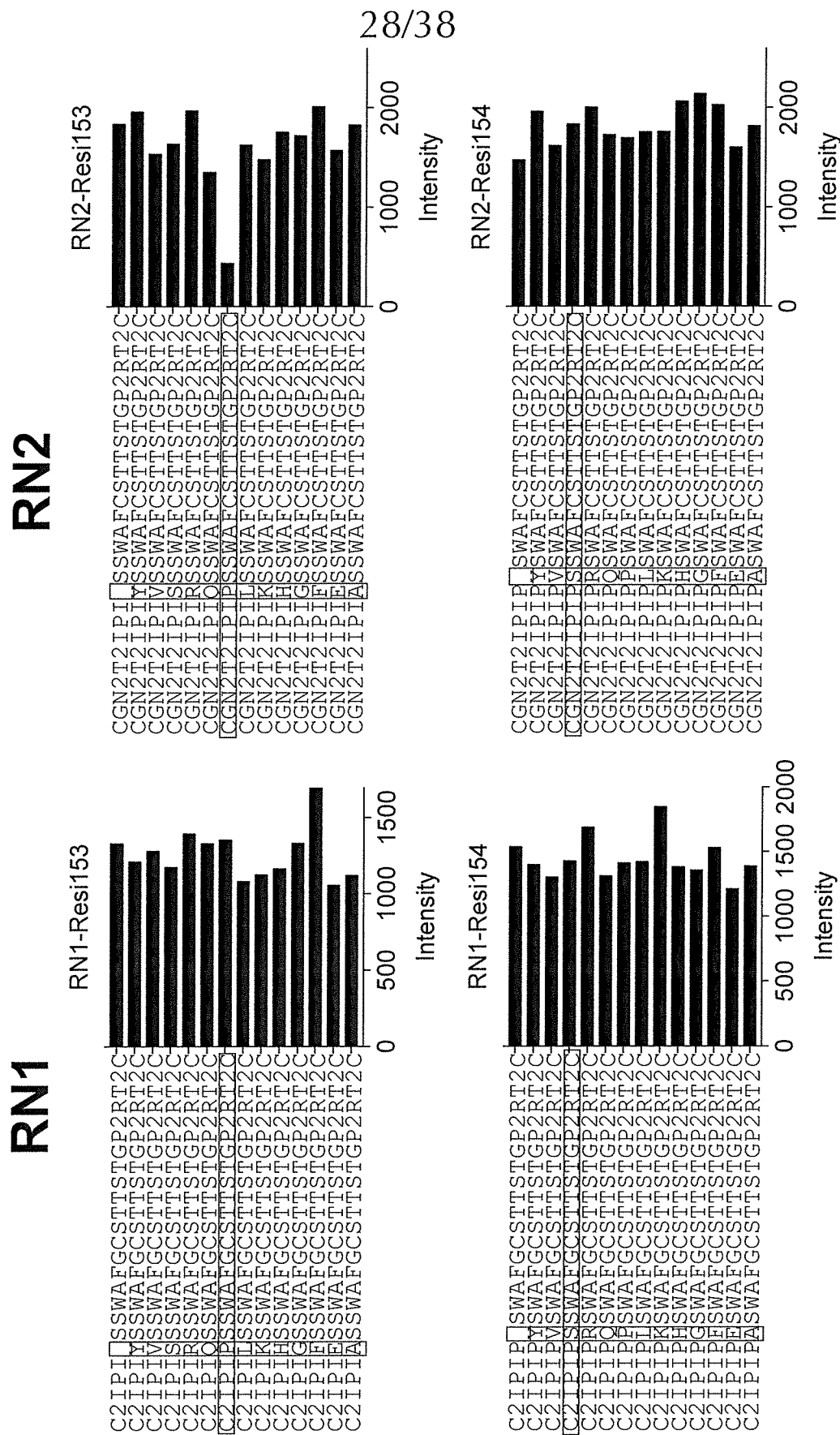


Figure 18 (continued)



D

8

Figure 18 (continued)

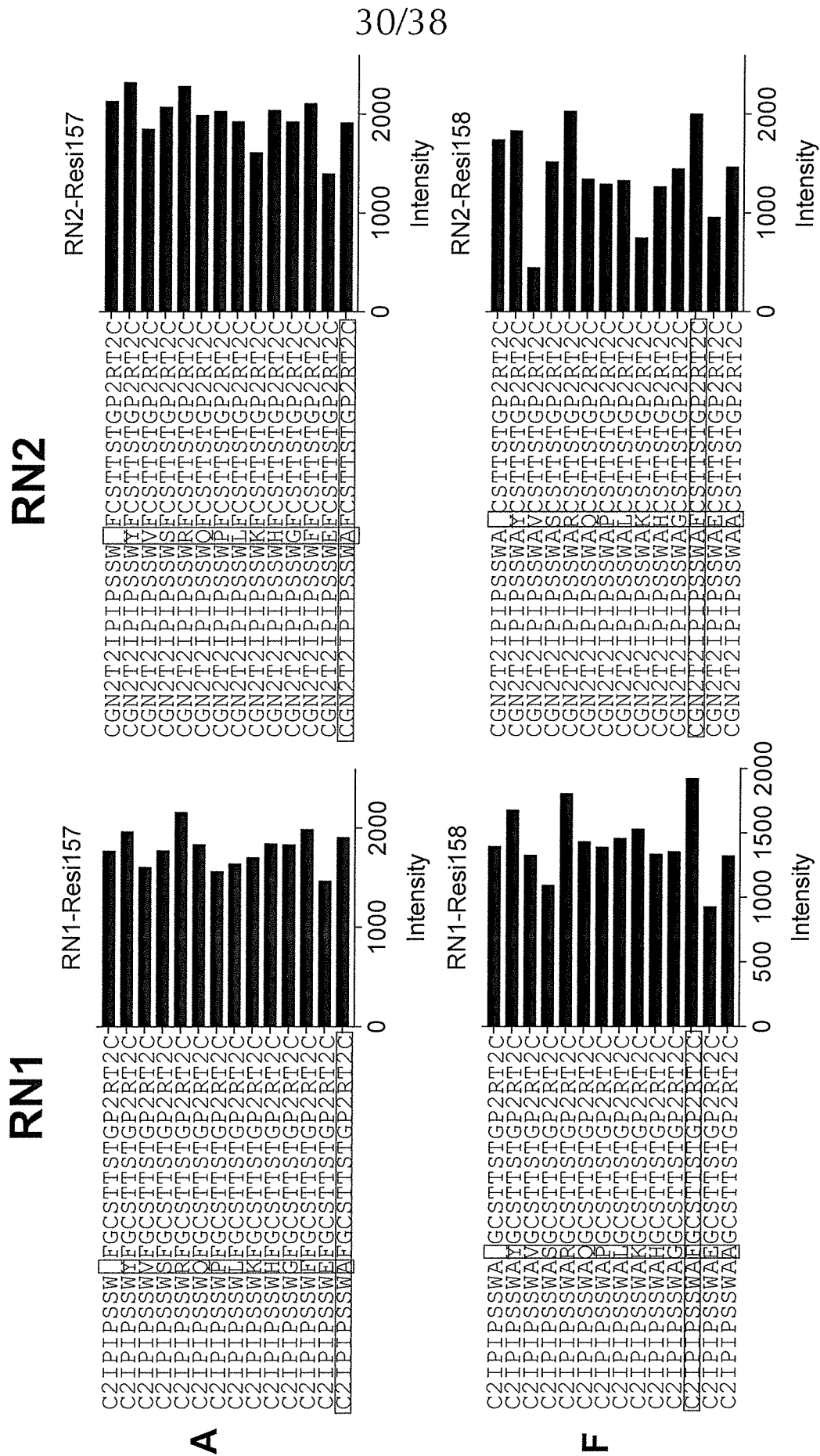


Figure 18 (continued)

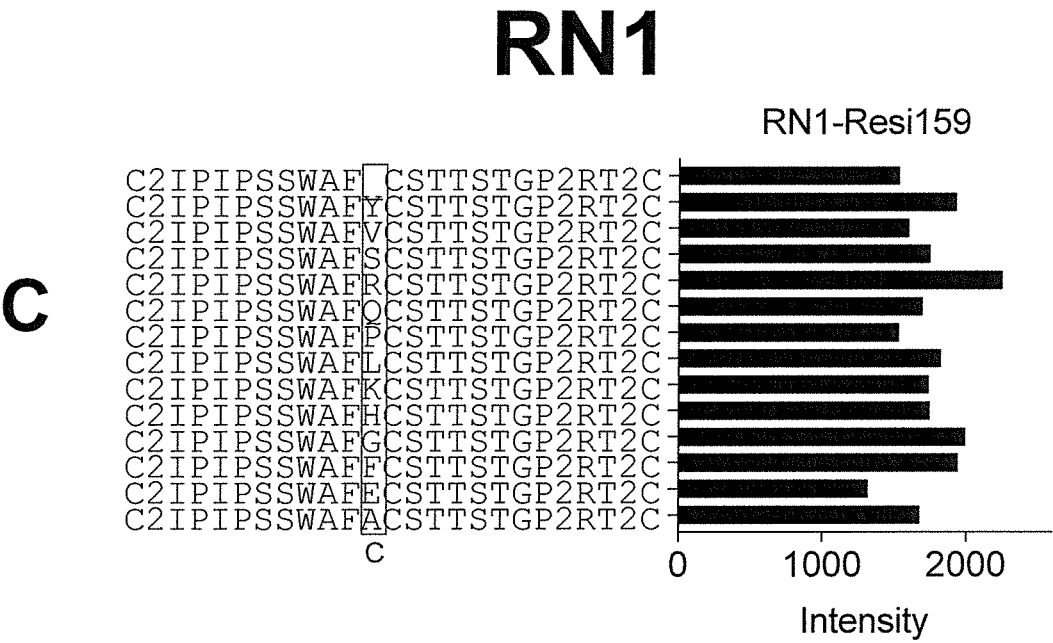


Figure 18 (continued)

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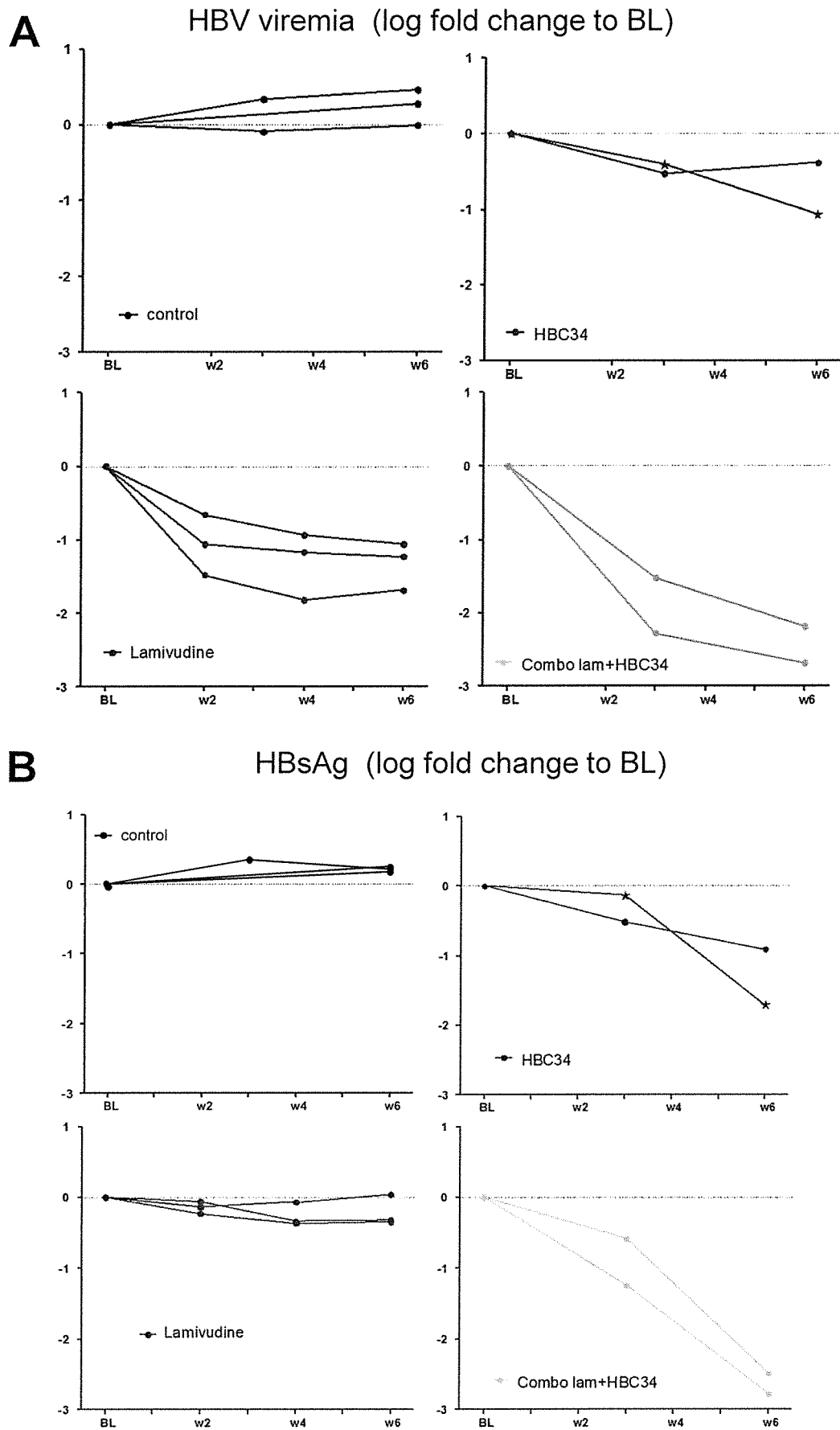


Figure 19

A

VH-WT	ELQLVESGGGWQPGGSQLSCAASGRIRSFYMSWVRQAPGKGLEWATINODGSEKLYVDSVKGRETI SRDIAKNSLFLQMNRLVEDTAVYYCAAWSGSGGMDVWGQGTTSVSS	119
VH-M115I		119
VH-M115L		119
VH-W107A		119
VH-W107A/M115A		119
VH-W107F		119
VH-M115L/FR124GL	.V.	119
VH-M115L/FR1234GL	.V.	119
VH-FR124GL	.V.	119
VH-JUCA	.V.	119

B

VL-WT	SYELTQPPSVSVSPGQT VSI PCSGDKLGNKNCVCFQHKPGQSPVLVIYEKYRPSGIPERFSGSNSGNTATLTISGTQAMDEAAAYFCQTWDSITTVVFGGGTRLTVL	106
VL-W107A		106
VL-W107F		106
VL-W107F/FR1234GL		106
VL-W107F/FR1234GL/Y66		106
VL-JUCA		106

Figure 20

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Variant name	VH	VL	Binding to HBsAg (adw)
HBC34	WT	WT	+
HBC34-V1	W107F	WT	+/-
HBC34-V2	W107F	W107A	-
HBC34-V3	W107F	W107F	+/-
HBC34-V4	M115I	W107F	+/-
HBC34-V5	W107A	W107F	-
HBC34-V6	M115L	W107F	+/~
HBC34-V7	WT	W107F	+
HBC34-V8	W107A/M115A	W107F	-
HBC34-V9	W107A/M115A	W107A	-
HBC34-V10	W107A/M115A	WT	-
HBC34-V11	M115I	WT	+/~
HBC34-V12	W107A	WT	-
HBC34-V13	M115L	WT	+
HBC34-V15	WT	W107A	+/~
HBC34-V16	M115L	W107A	+/-
HBC34-V17	W107A	W107A	-
HBC34-V18	M115I	W107A	+/-

Figure 21

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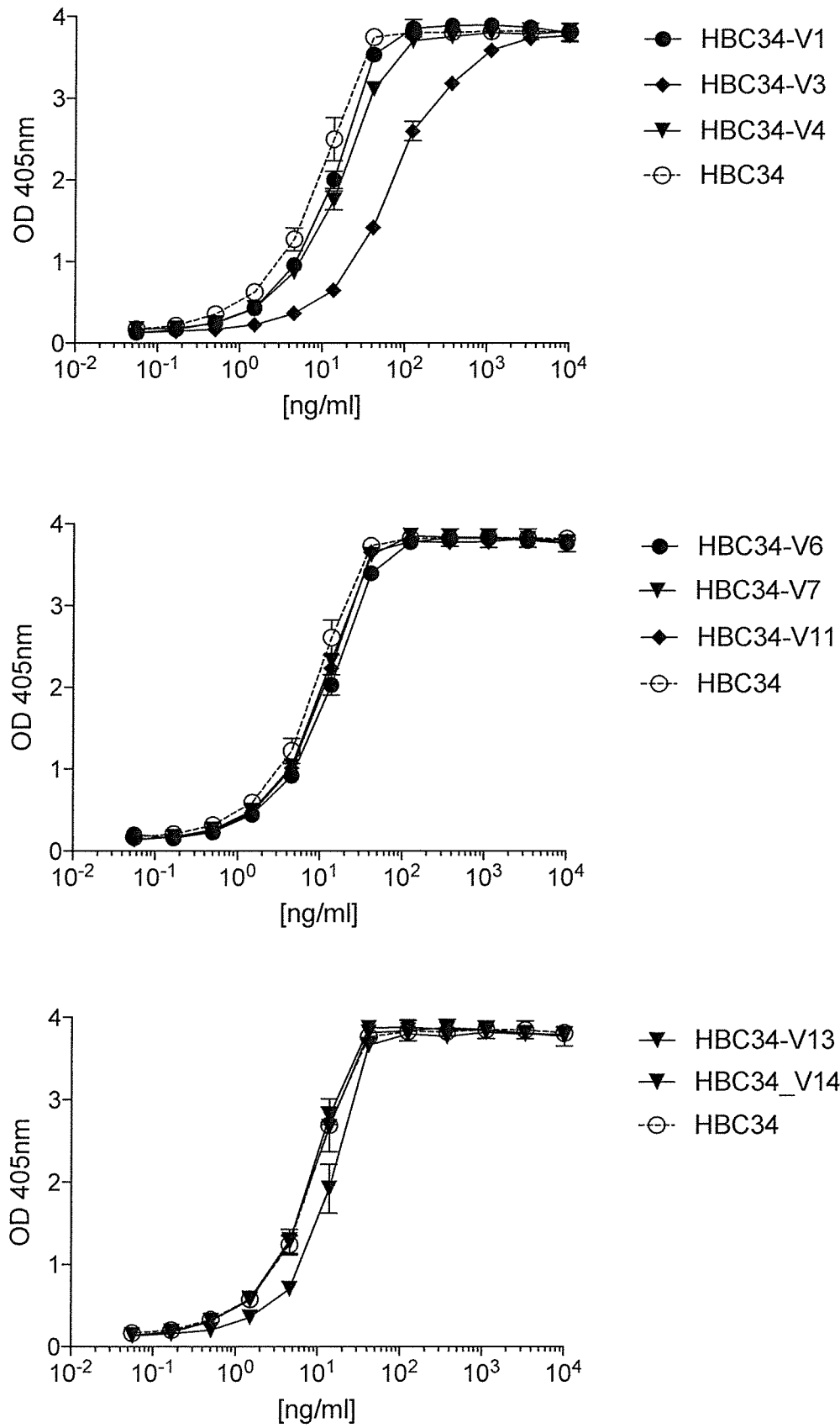


Figure 22

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Variant name	VH	VL	Binding EC50	Fold change (mutant/wt)	Productivity (µg/ml)	Fold change (mutant/wt)
HBC34	WT	WT	7,7	1,0	318	1,00
HBC34-V1	W107F	WT	12,8	1,6	79	0,25
HBC34-V3	W107F	W107F	69,4	9,0	64	0,20
HBC34-V4	M115I	W107F	15,7	2,0	112	0,35
HBC34-V6	M115L	W107F	12,7	1,6	103	0,32
HBC34-V7	WT	W107F	10,4	1,3	533	1,68
HBC34-V11	M115I	WT	10,8	1,4	195	0,61
HBC34-V13	M115L	WT	8,0	1,0	106	0,33

Figure 23

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A

Variant name	VH modification	VL modification	EC50	Fold change (mutant/wt)	Productivity (µg/ml)	Fold change (mutant/wt)
HBC34	WT	WT	13,3	1,0	197	1,00
HBC34-V6	M115L	W107F	16,5	1,2	35	0,18
HBC34-V7	WT	W107F	18,6	1,4	232	1,18
HBC34-V13	M115L	WT	12,0	0,9	46	0,23
HBC34-V19	M115L/FR124GL	WT	18,9	1,4	37	0,19
HBC34-V20	M115L/FR1234GL	WT	31,8	2,4	145	0,73
HBC34-V21	M115L/FR124GL	W107F	607	45,6	28	0,14
HBC34-V22	M115L/FR1234GL	W107F	419	31,4	110	0,56
HBC34-V23	WT	W107F/FR1234GL/CDR2Y66	20,1	1,5	184	0,93
HBC34-V24	M115L	W107F/FR1234GL/CDR2Y66	24,0	1,8	27	0,14
HBC34-V25	M115L/FR124GL	W107F/FR1234GL/CDR2Y66	492	36,9	26	0,13
HBC34-V26	M115L/FR1234GL	W107F/FR1234GL/CDR2Y66	125	9,4	93	0,47
HBC34-V27	WT	W107F/FR1234GL	2022	151,8	270	1,37
HBC34-V28	M115L	W107F/FR1234GL	2037	152,9	29	0,15
HBC34-V29	M115L/FR124GL	W107F/FR1234GL	>10000	ND	36	0,18
HBC34-V30	M115L/FR1234GL	W107F/FR1234GL	>10000	ND	101	0,51

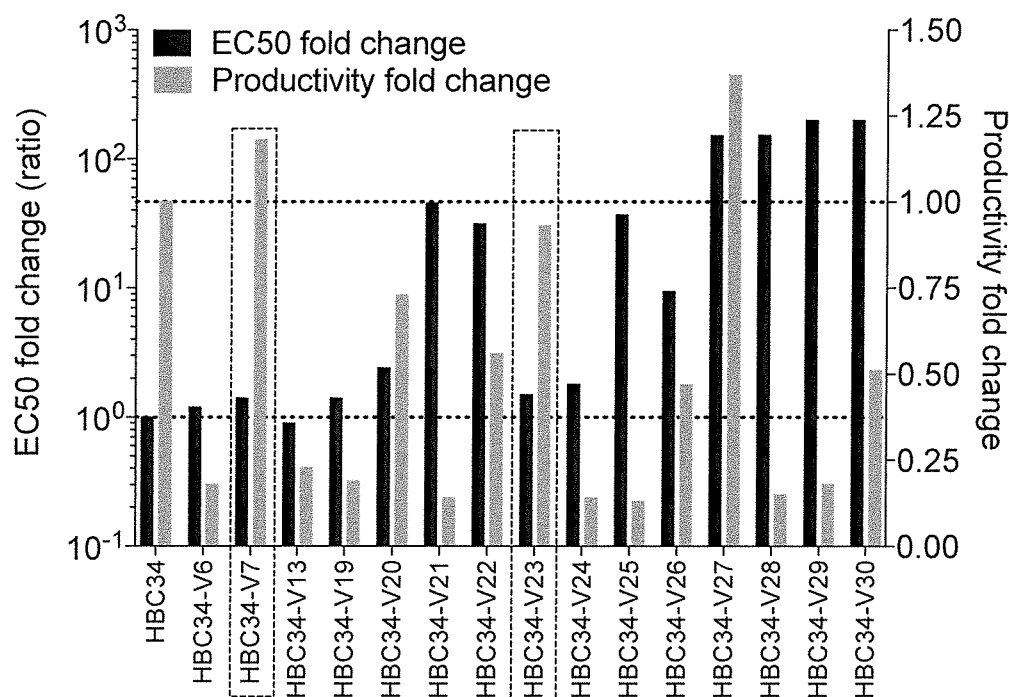
B

Figure 24

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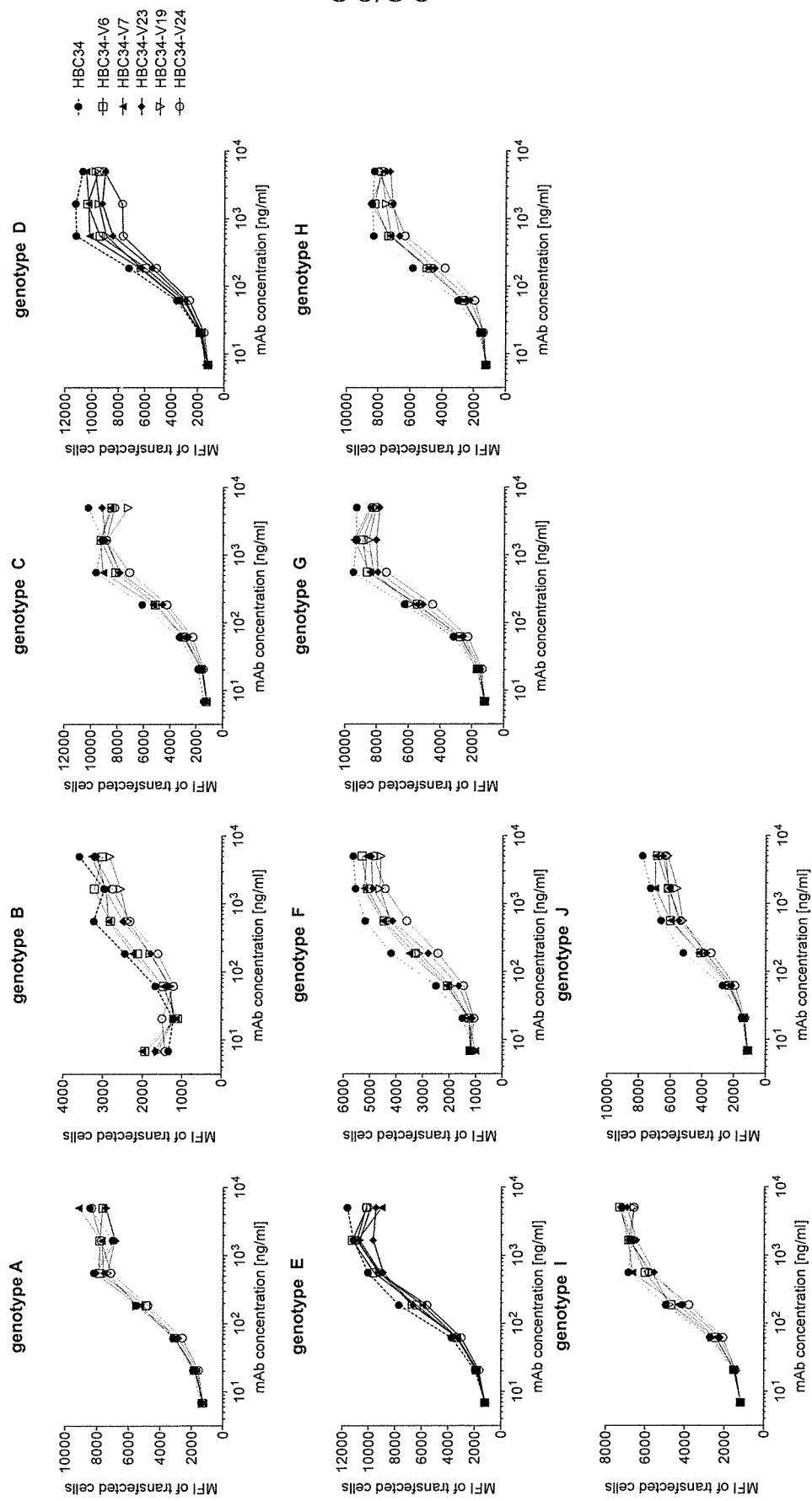


Figure 25