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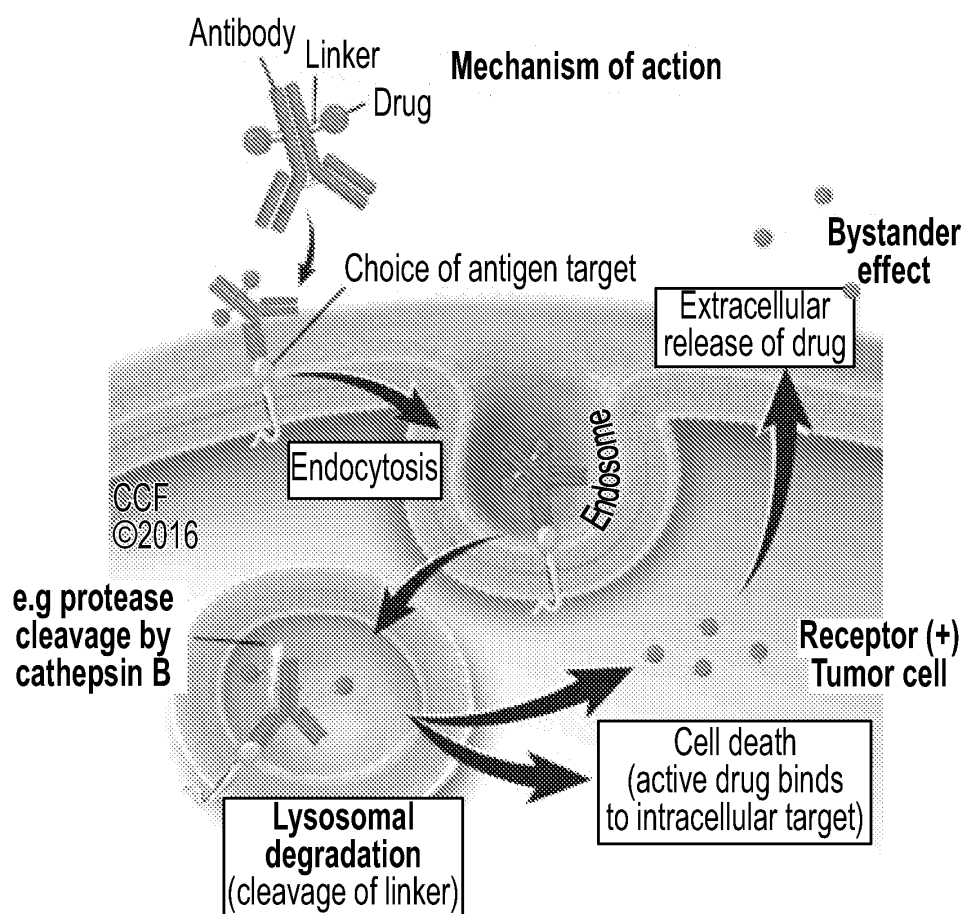
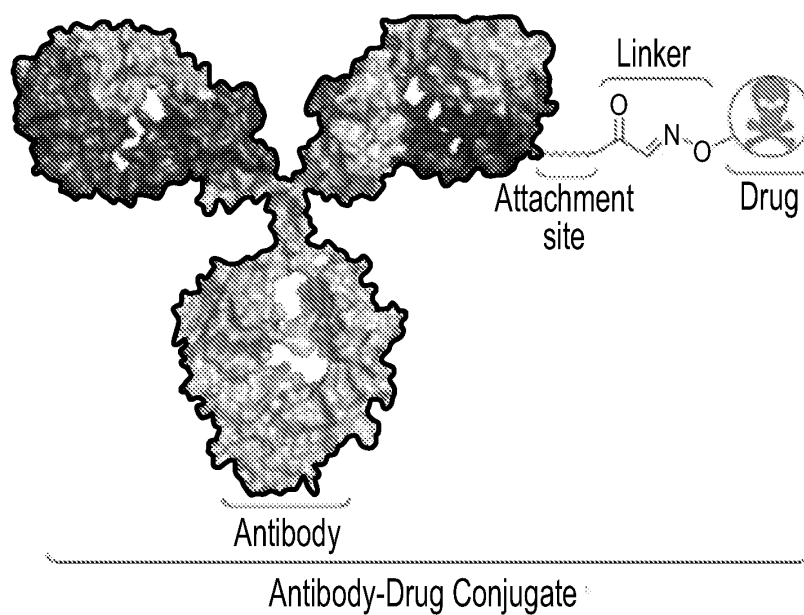
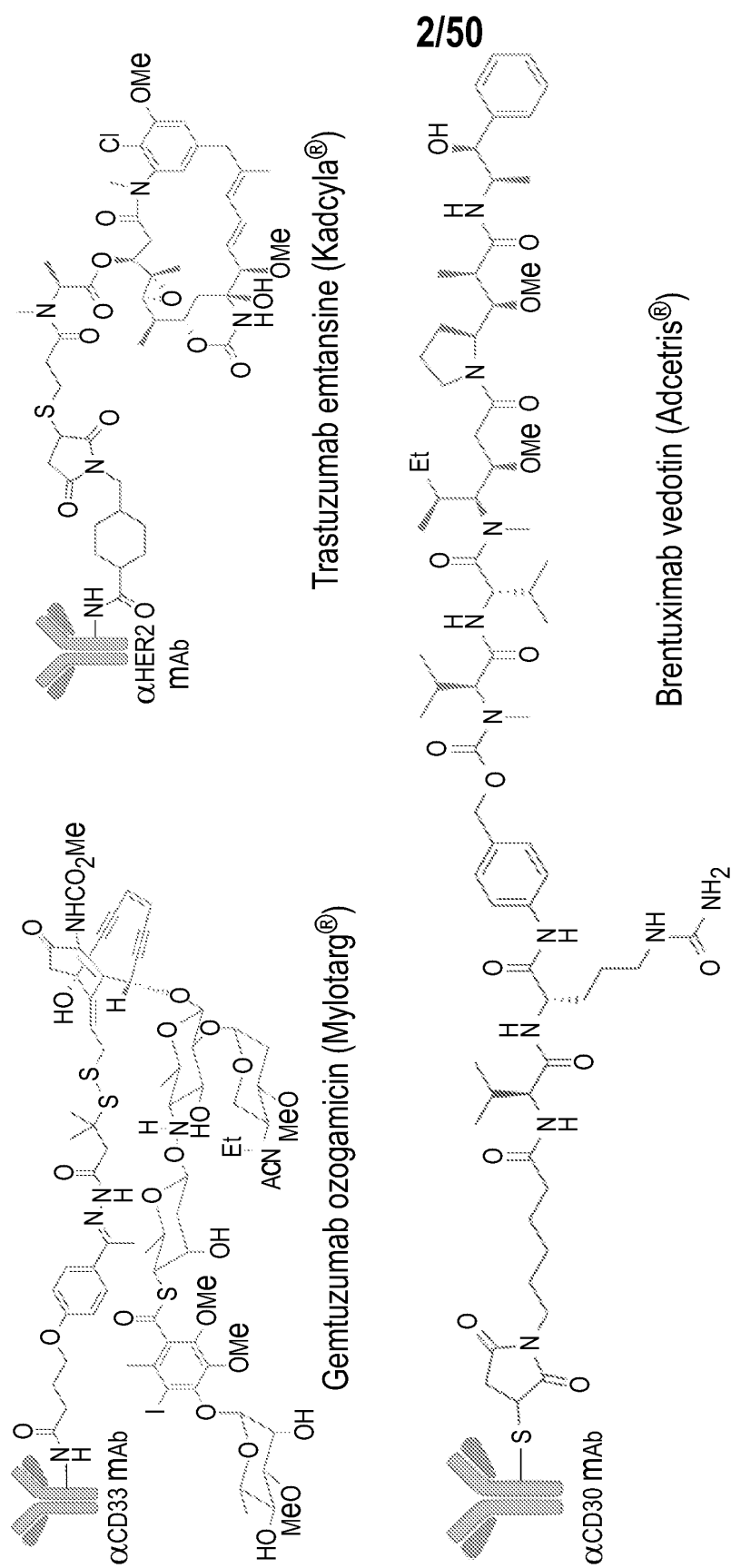


FIG. 1

SUBSTITUTE SHEET (RULE 26)



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FIG. 2

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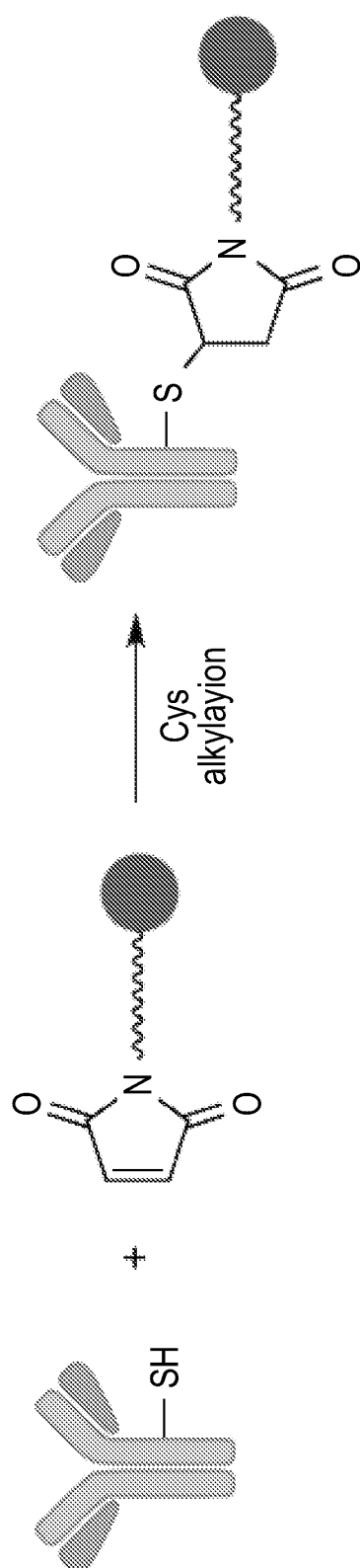


FIG. 3

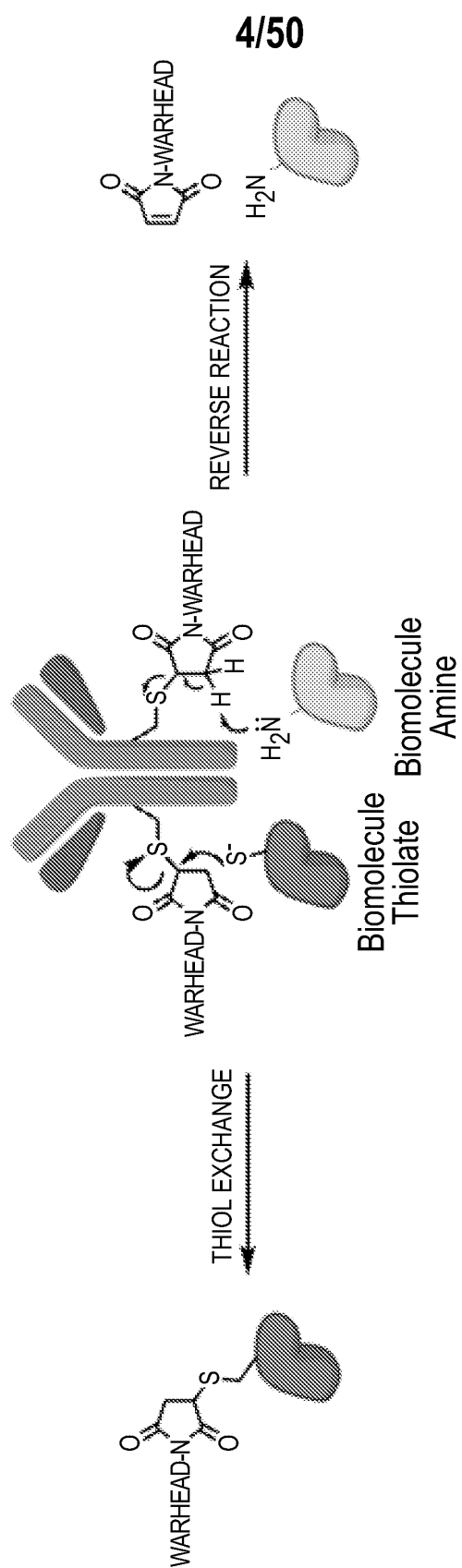
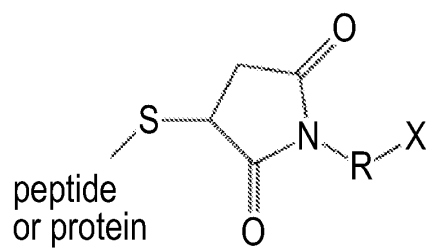
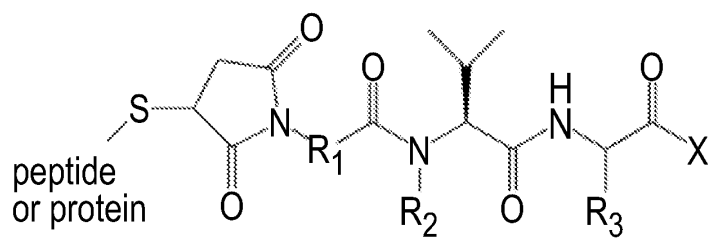


FIG. 4

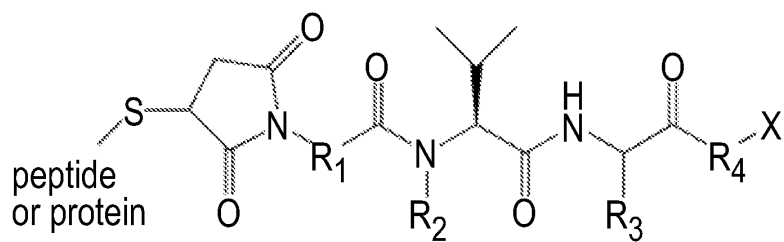
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Formula I



Formula II

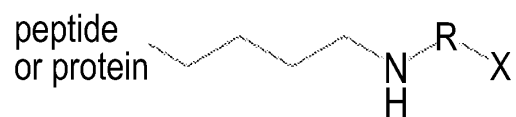


Formula III

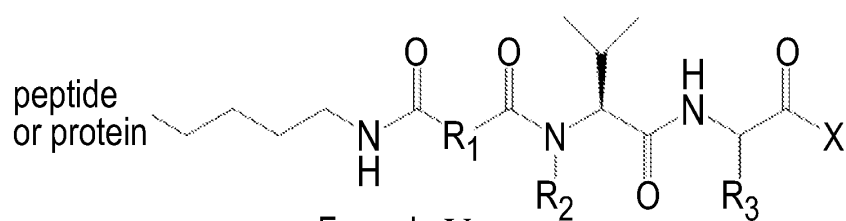
FIG. 5A

SUBSTITUTE SHEET (RULE 26)

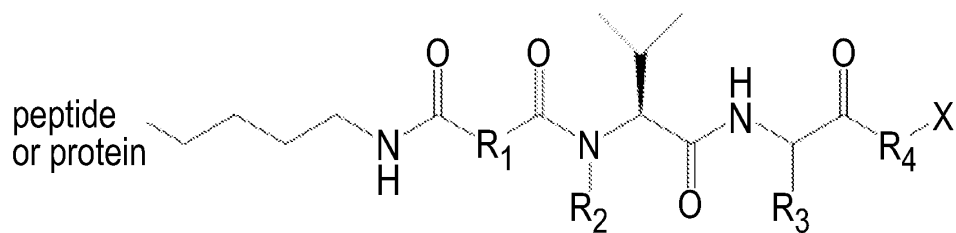
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Formula IV



Formula V



Formula VI

FIG. 5B

SUBSTITUTE SHEET (RULE 26)

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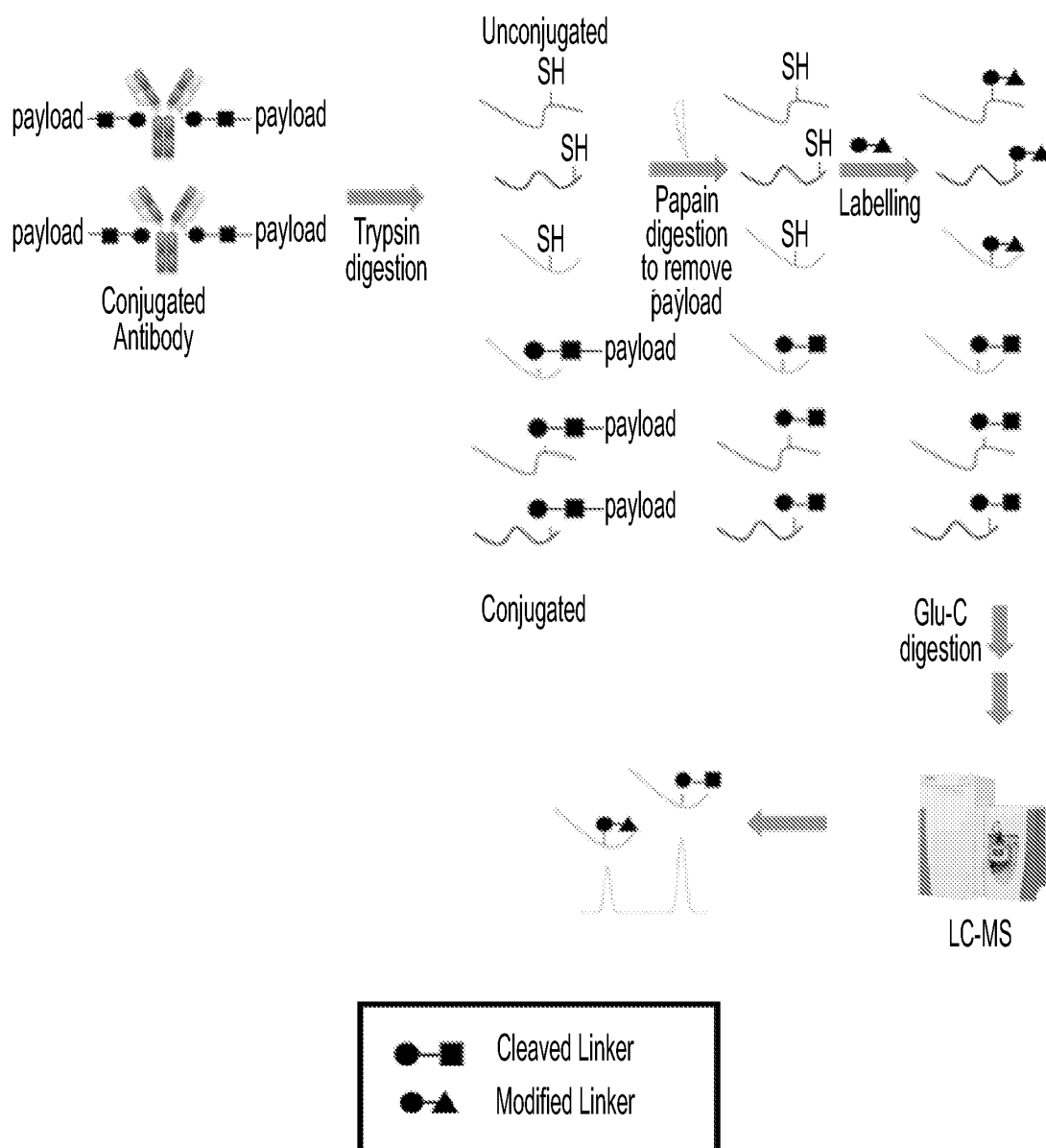


FIG. 6A

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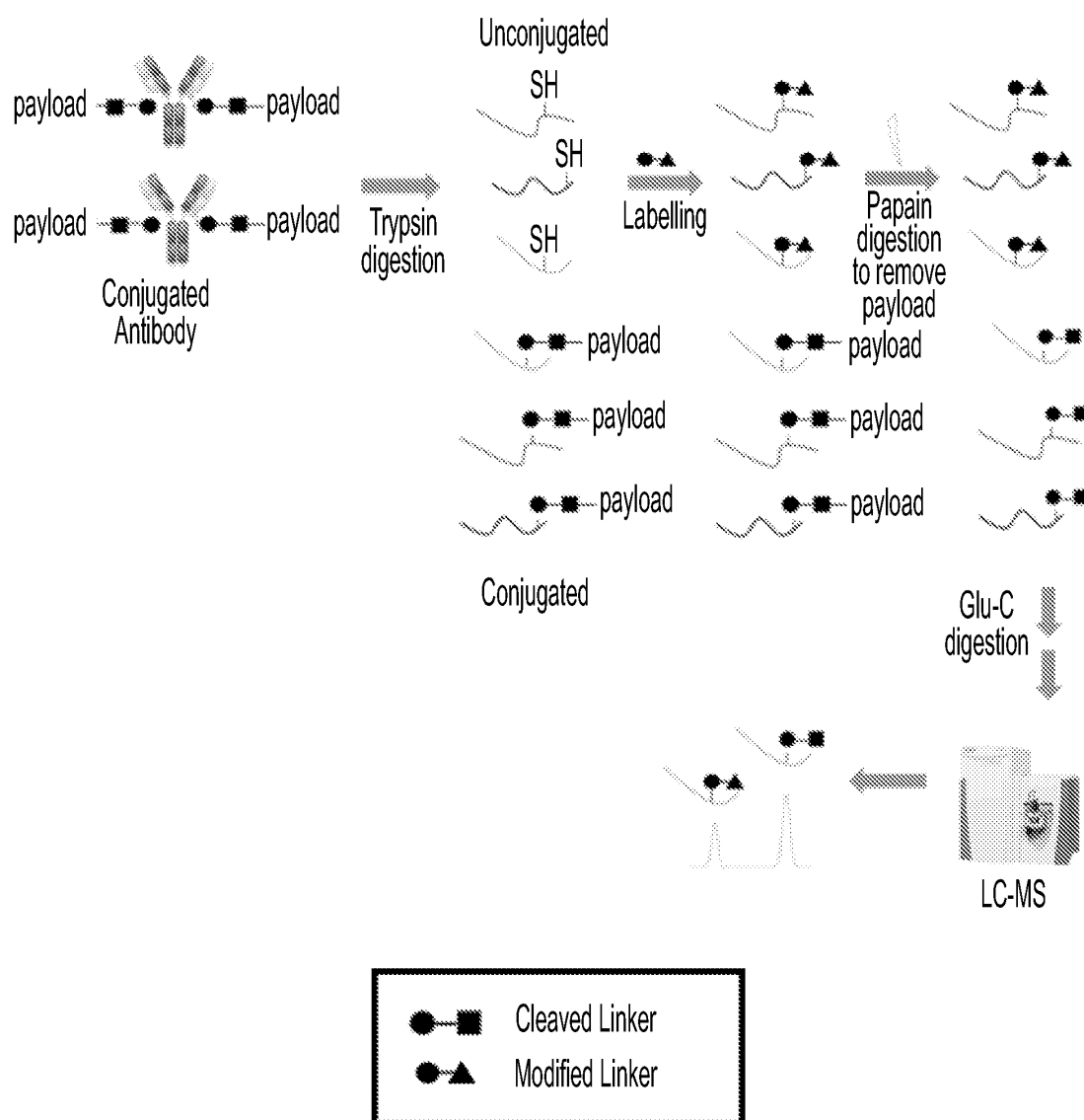


FIG. 6B

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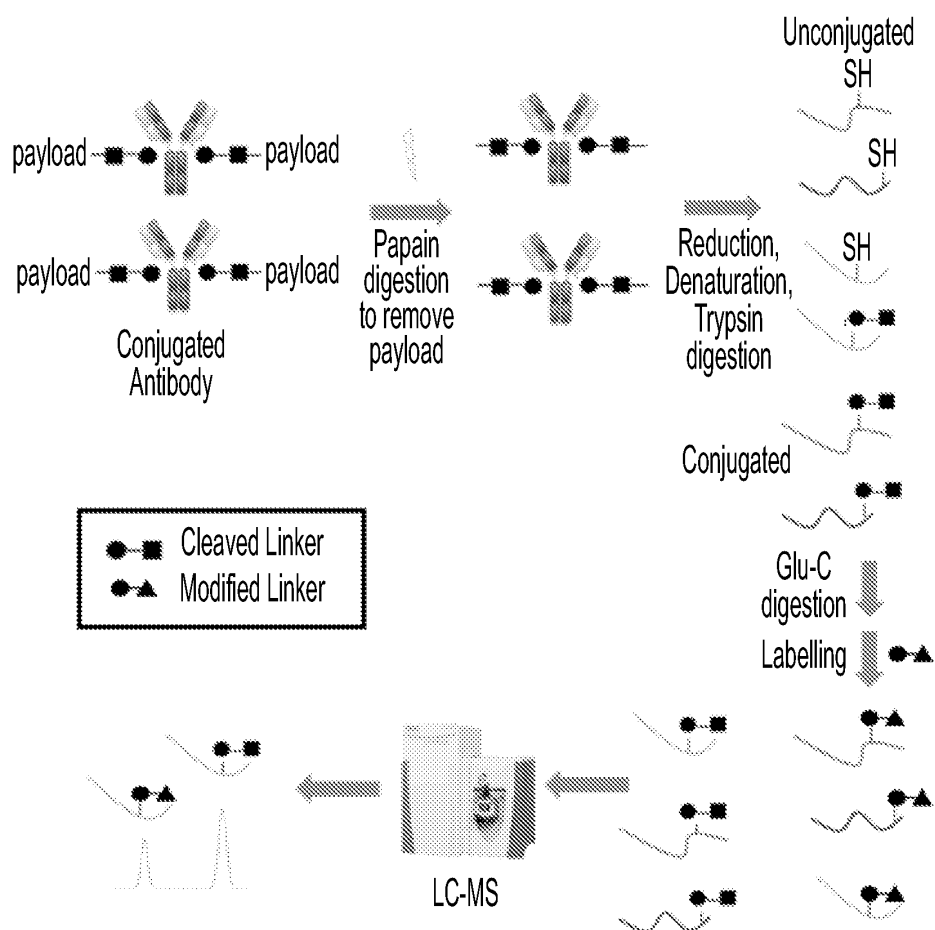


FIG. 6C

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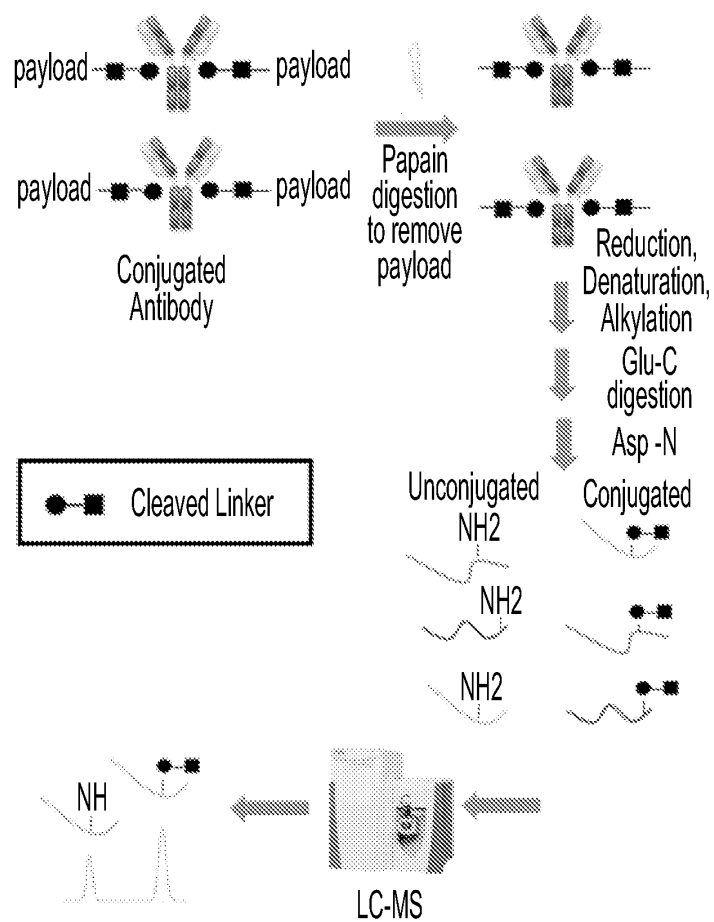


FIG. 7

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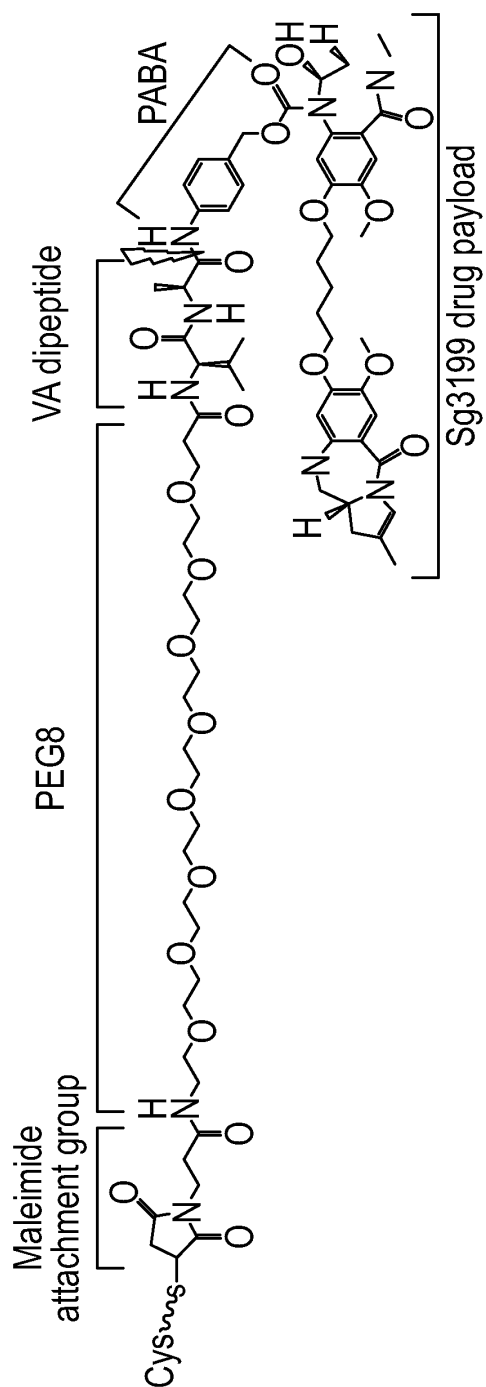


FIG. 8A

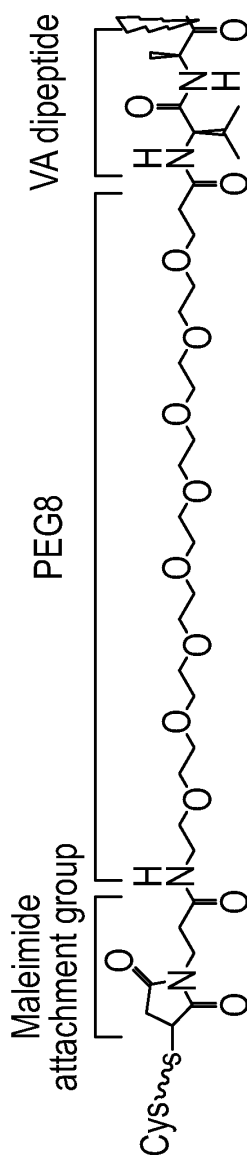


FIG. 8B

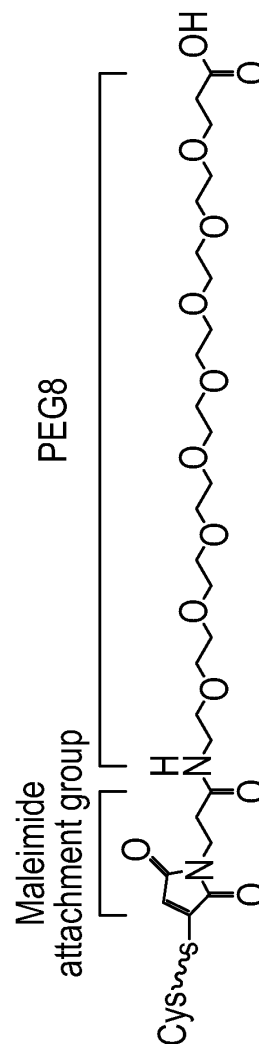


FIG. 8C

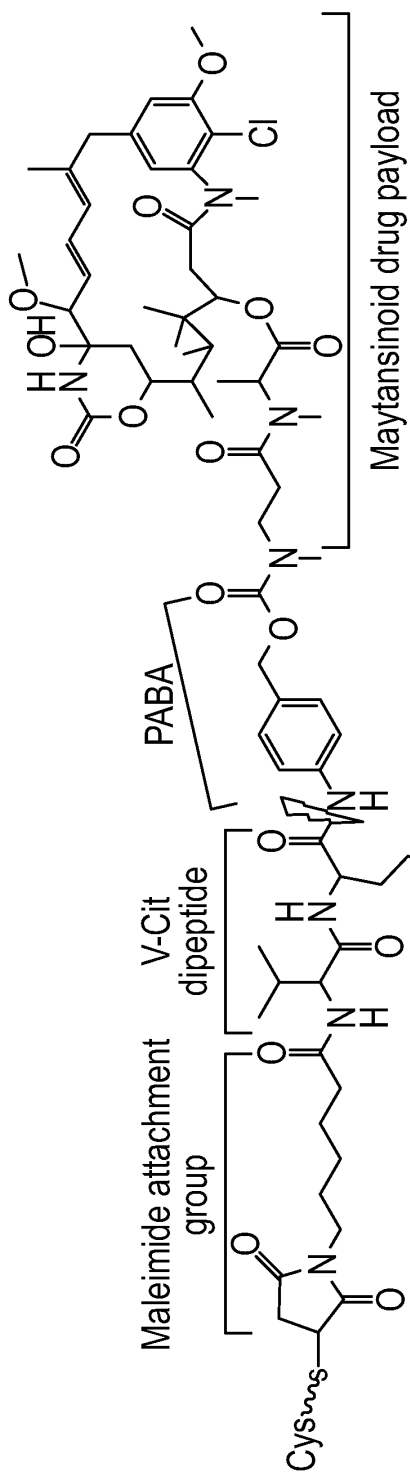


FIG. 8D

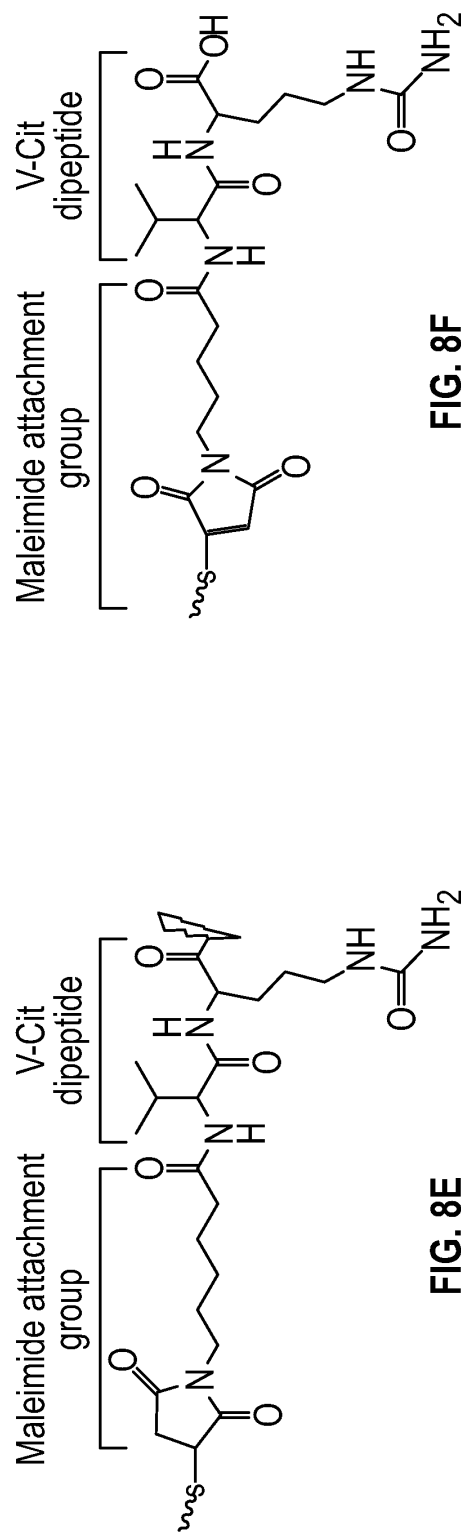


FIG. 8F

FIG. 8E

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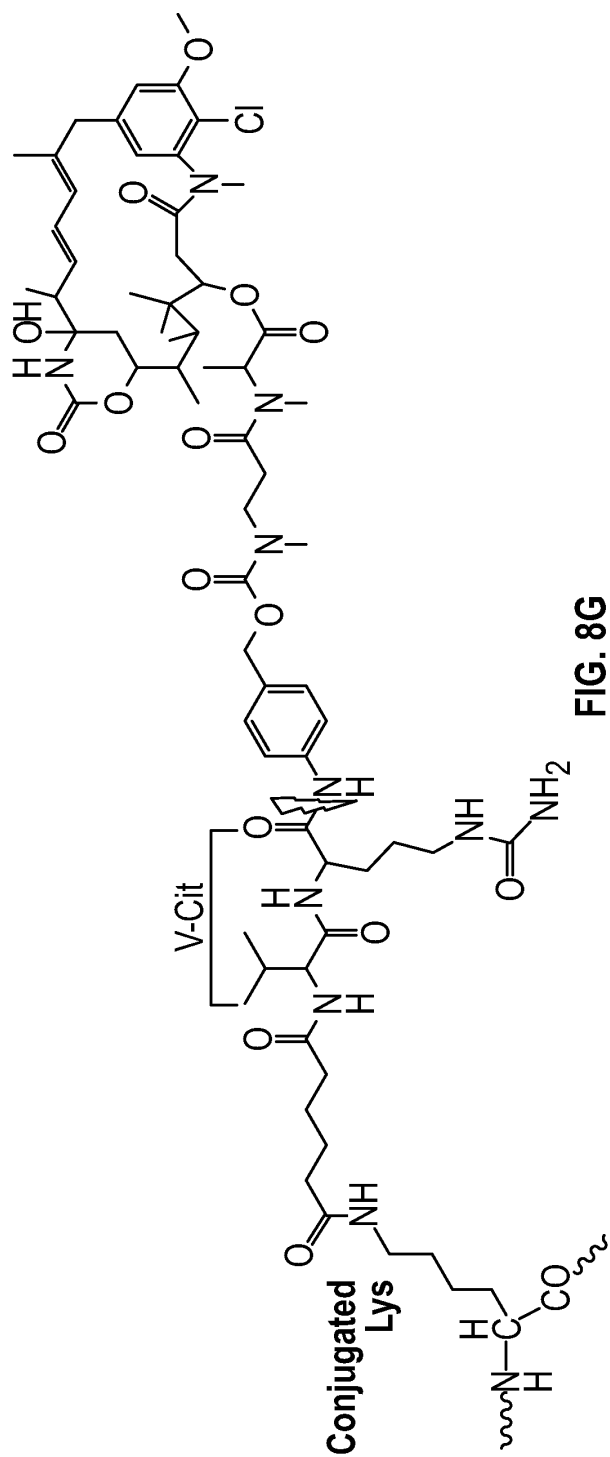


FIG. 8G

Cleaved Lk5 modification of +384.2 Da

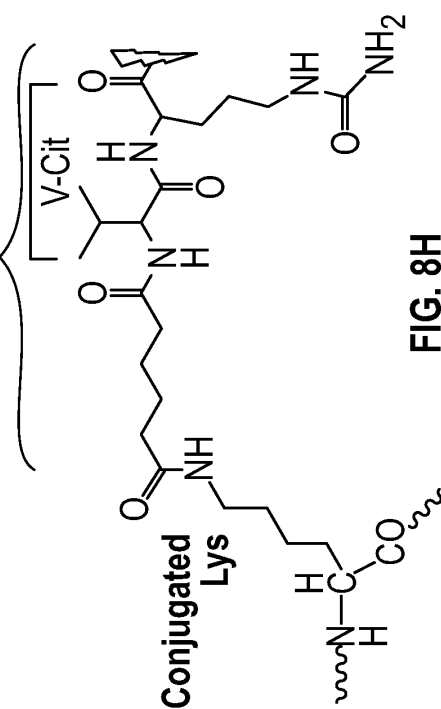


FIG. 8H

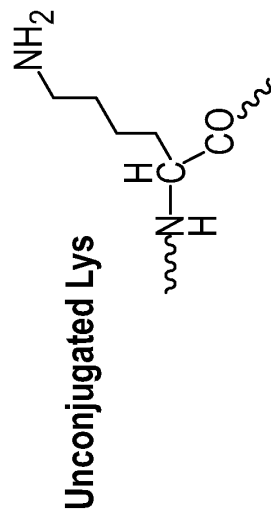


FIG. 8I

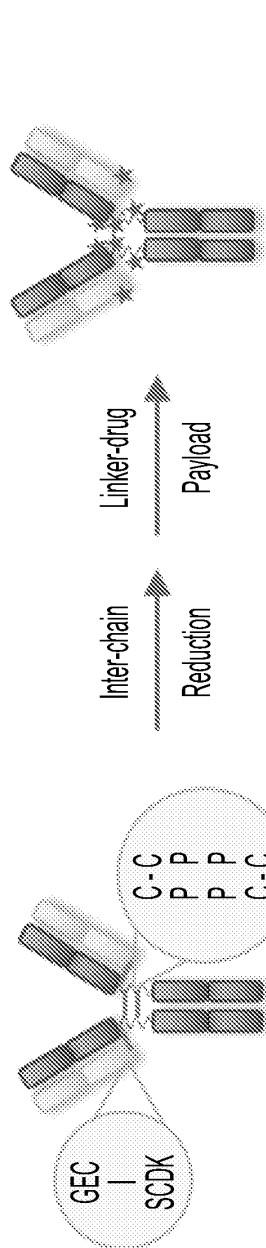


FIG. 9A

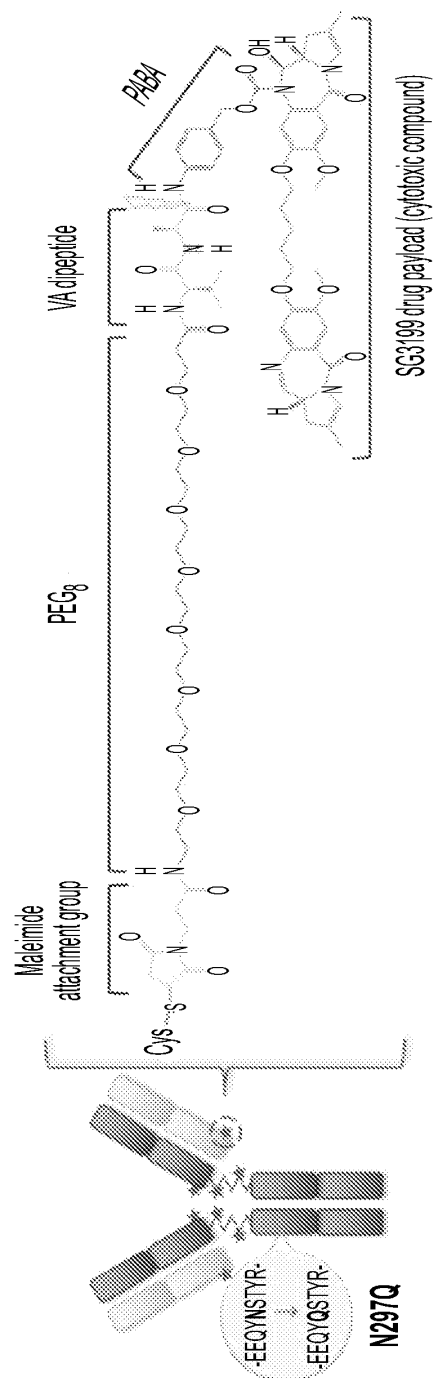


FIG. 9B

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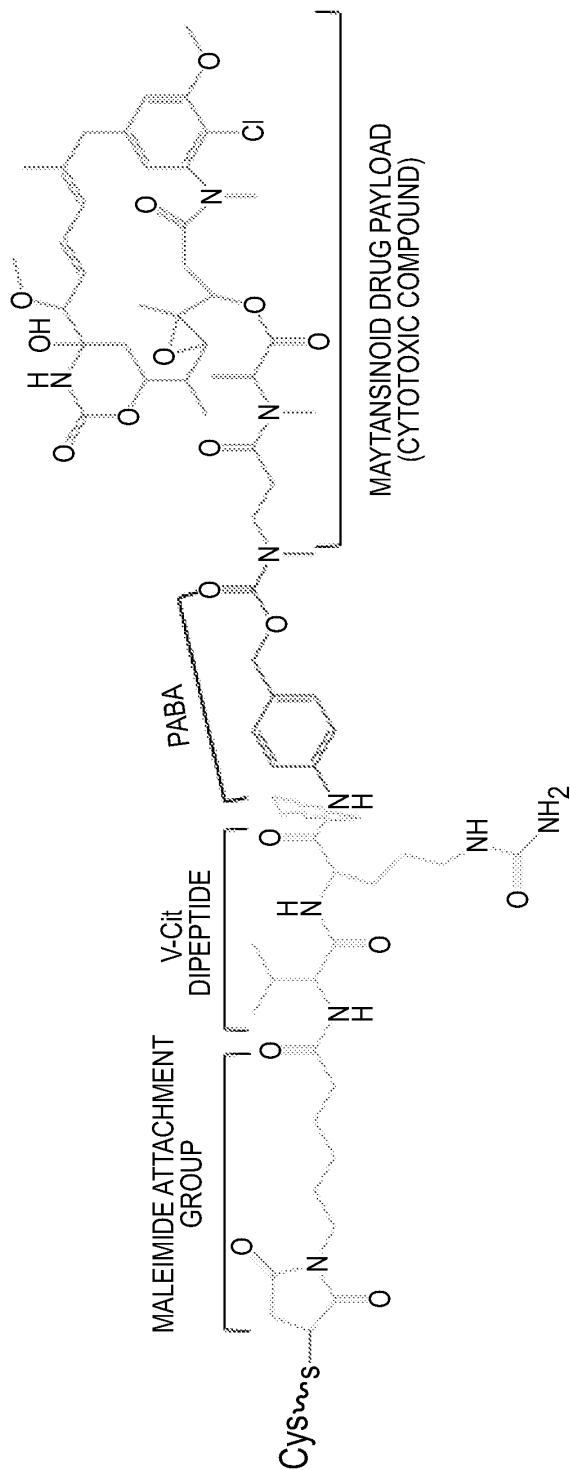


FIG. 9C

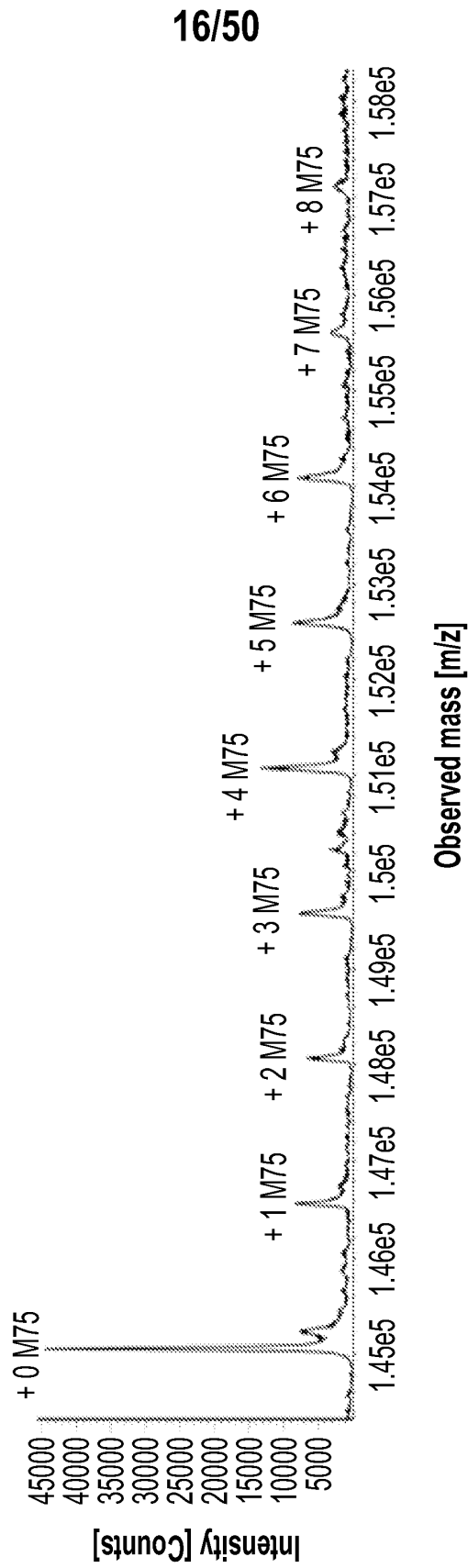


FIG. 10

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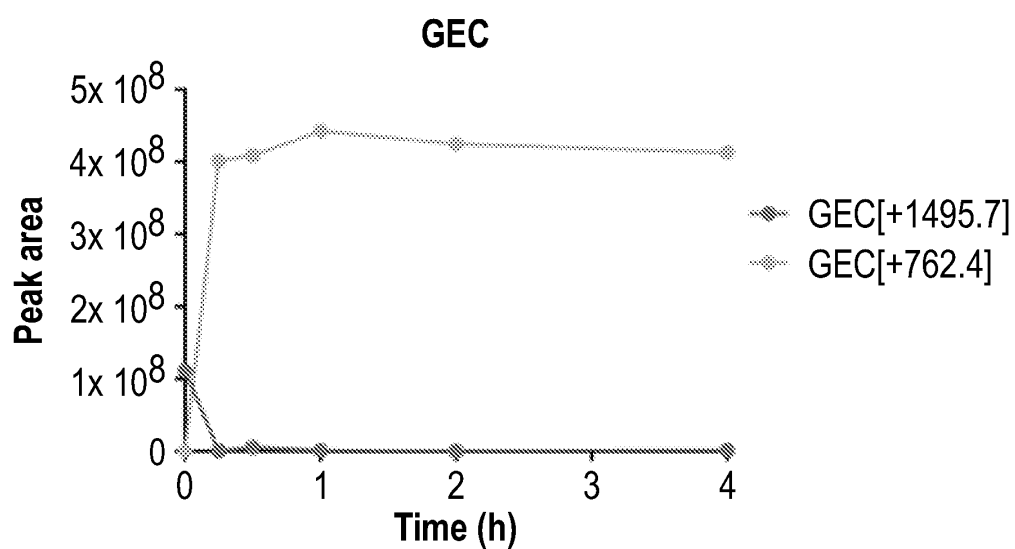
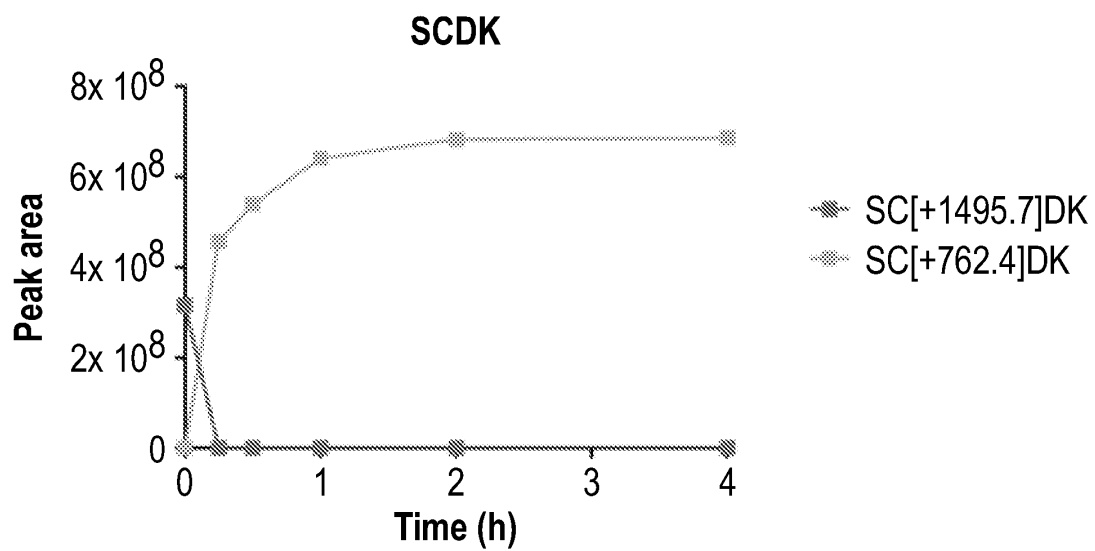


FIG. 11

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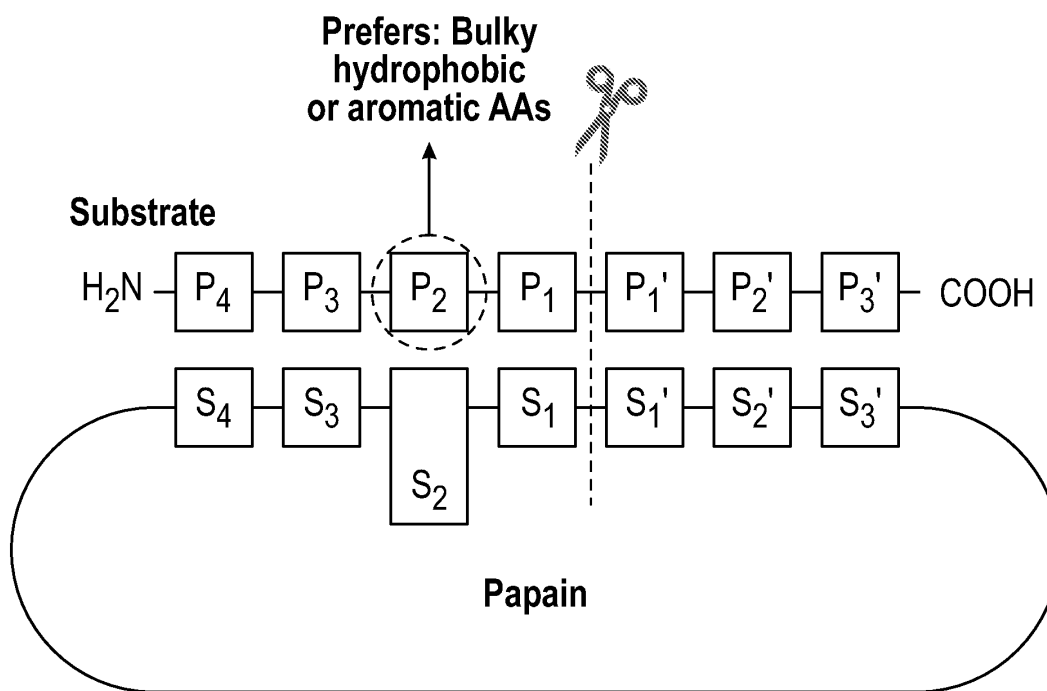


FIG. 12A

Multiple papain cleavage sites on the hinge region peptide:

TH ↑↑ T ↑↑ CPPCPAPE ↑↑ LL ↑↑ G ↑↑ GPSVFLFPPKPK

TH ↑↑ T ↑↑ CPPCPAPE ↑↑ L ↑↑ L ↑↑ G ↑↑ GPSVF ↑↑ L ↑↑ FPPKPK

FIG. 12B

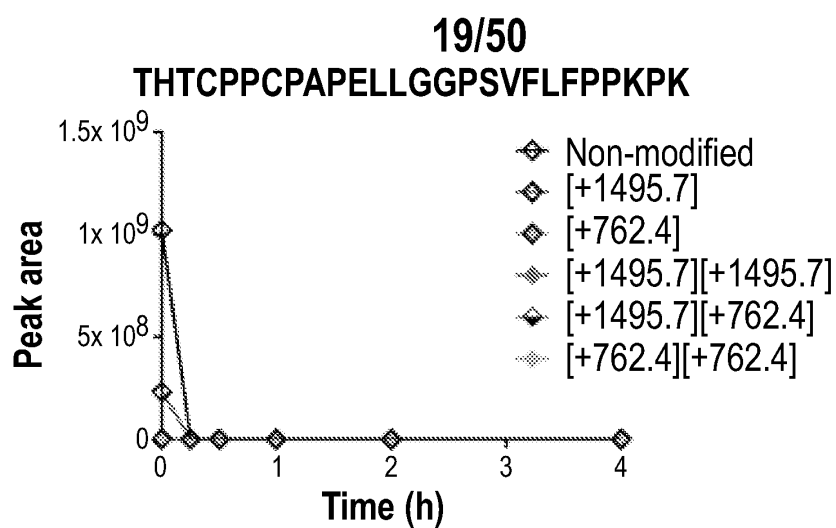


FIG. 13A

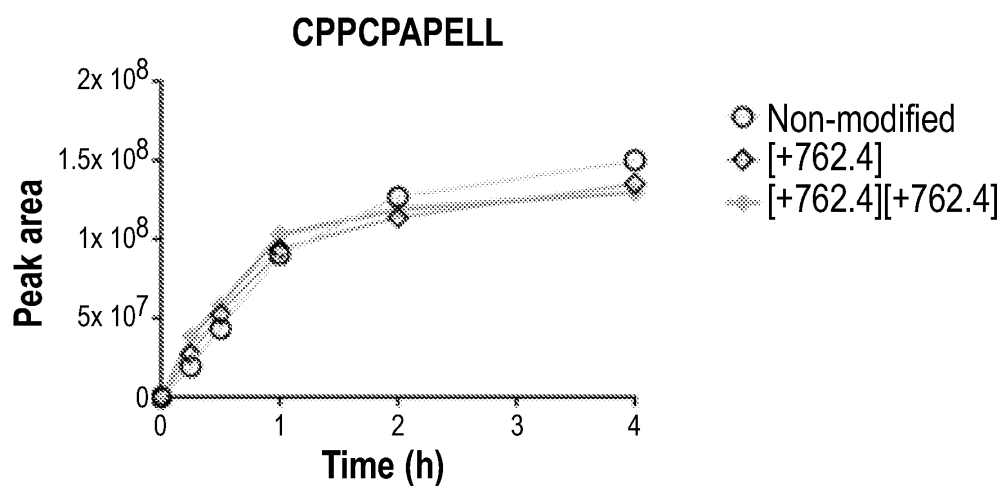


FIG. 13B

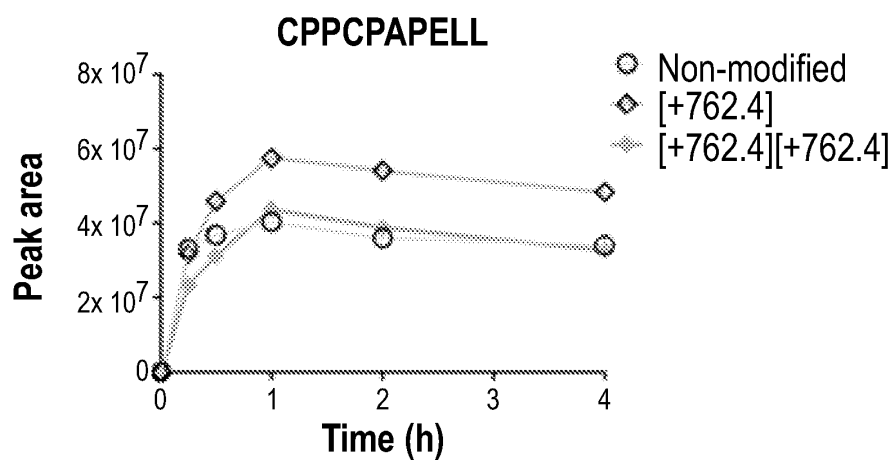
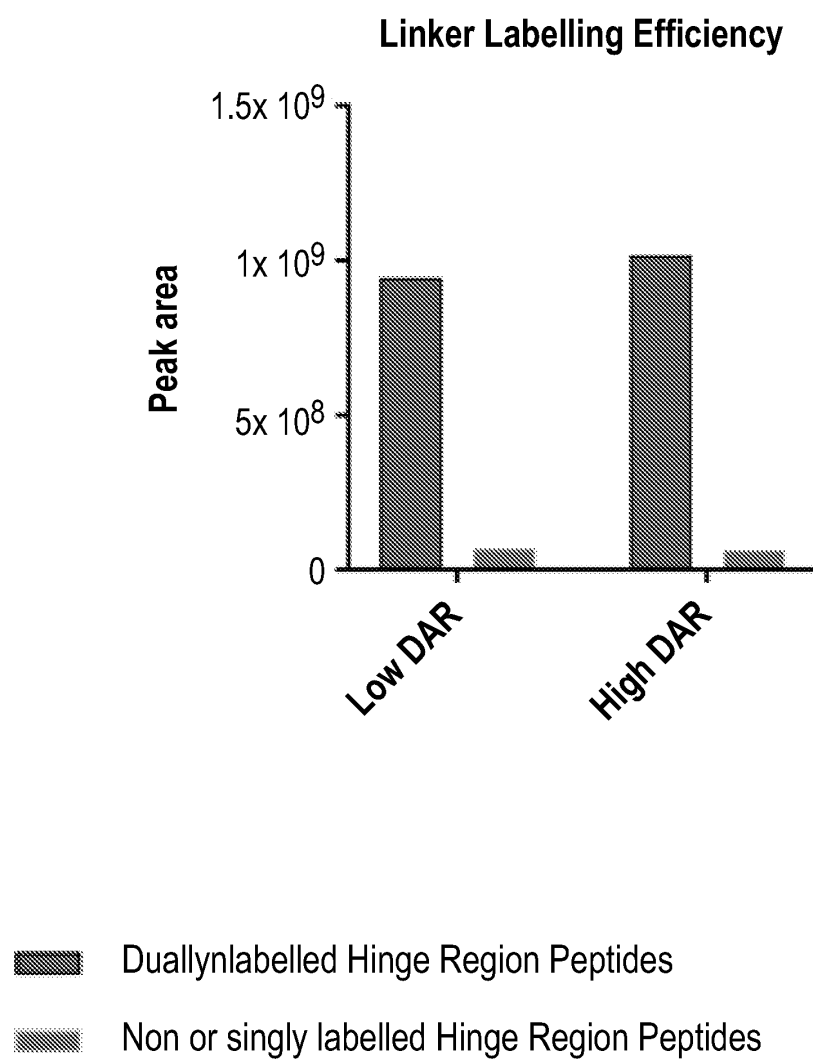


FIG. 13C

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**FIG. 14**

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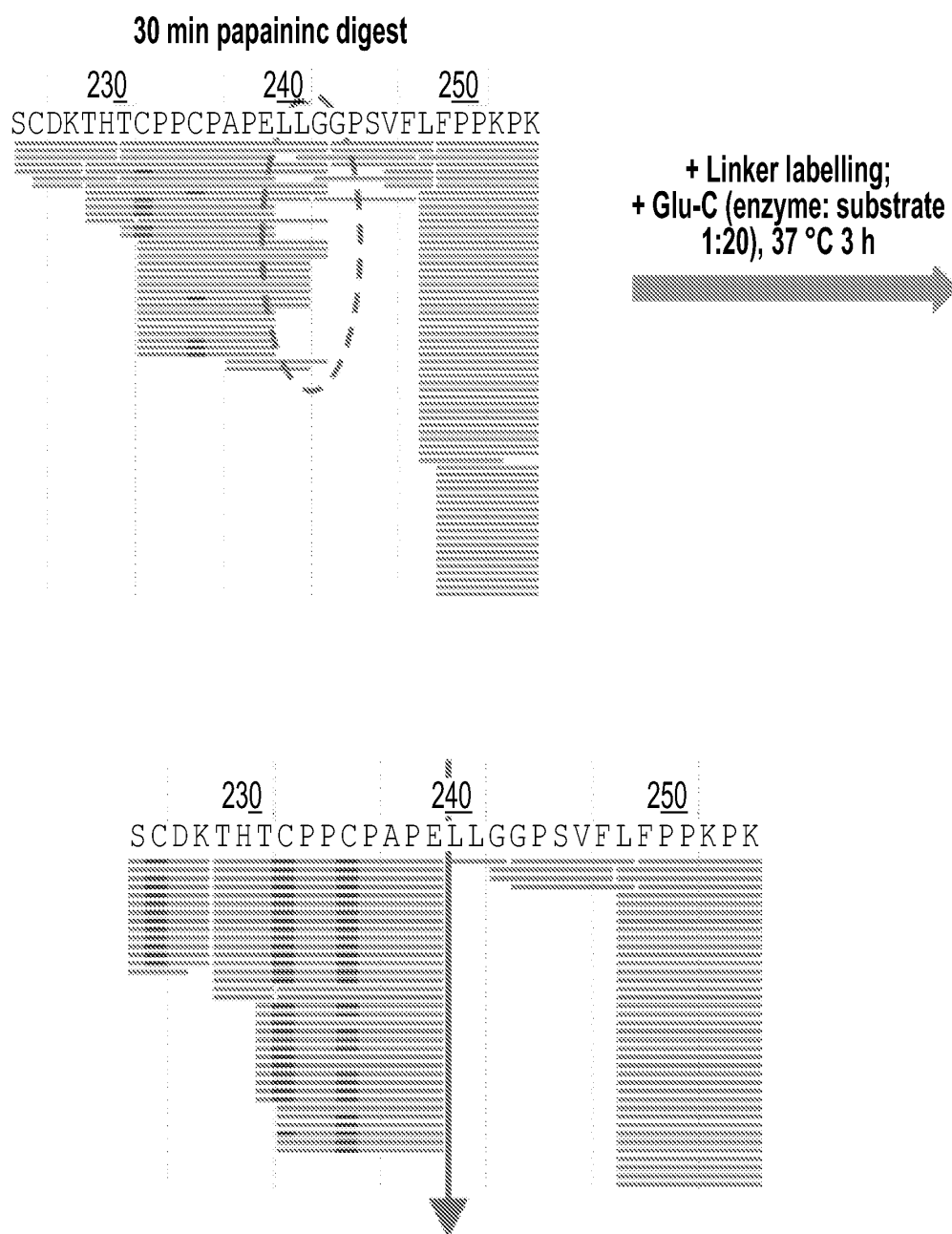


FIG. 15

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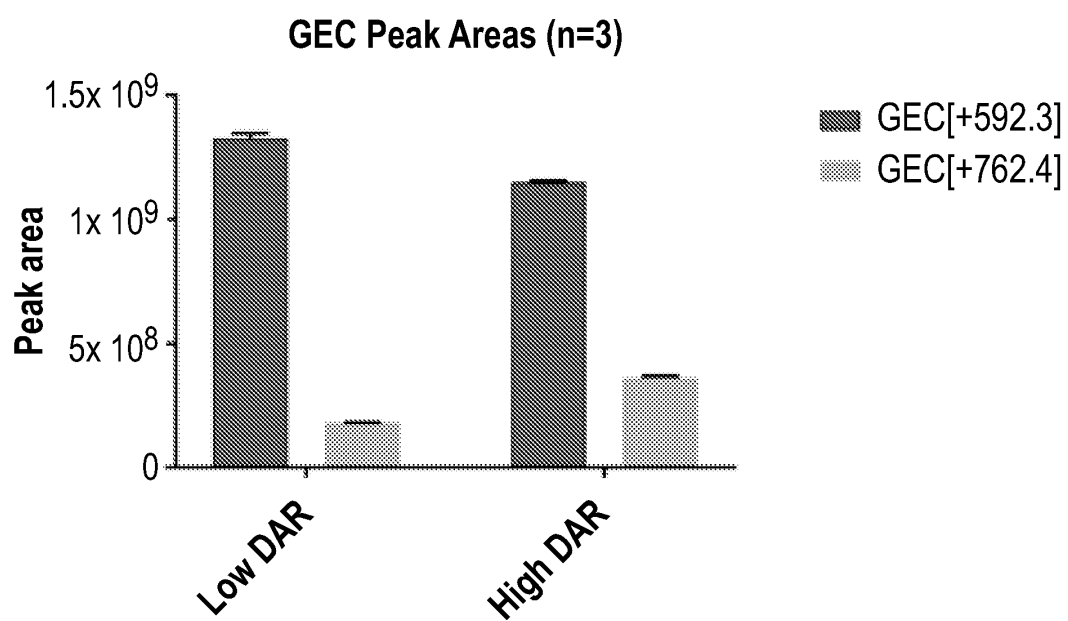
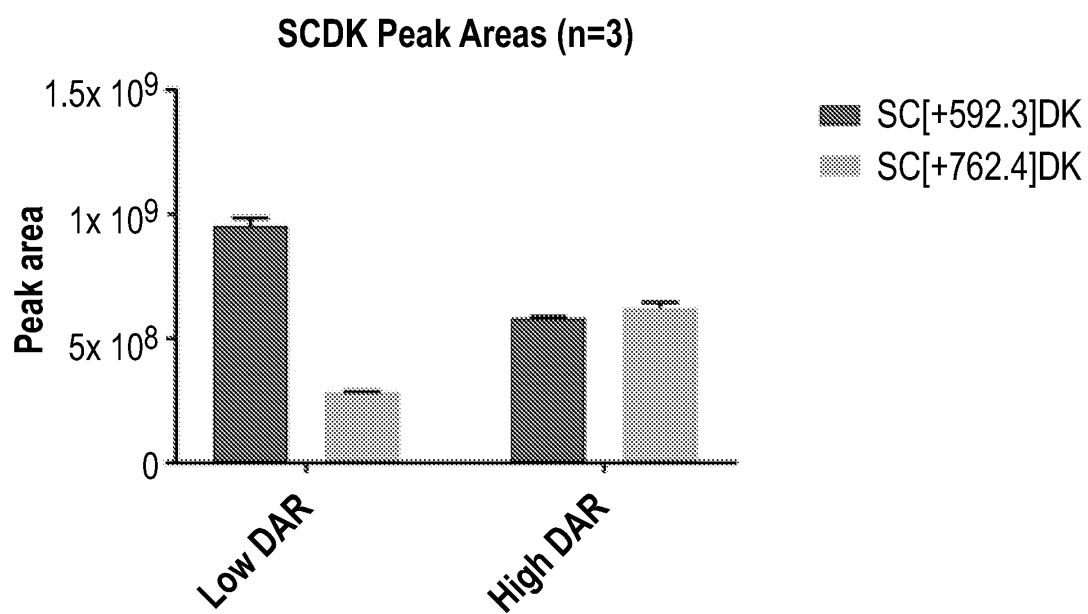
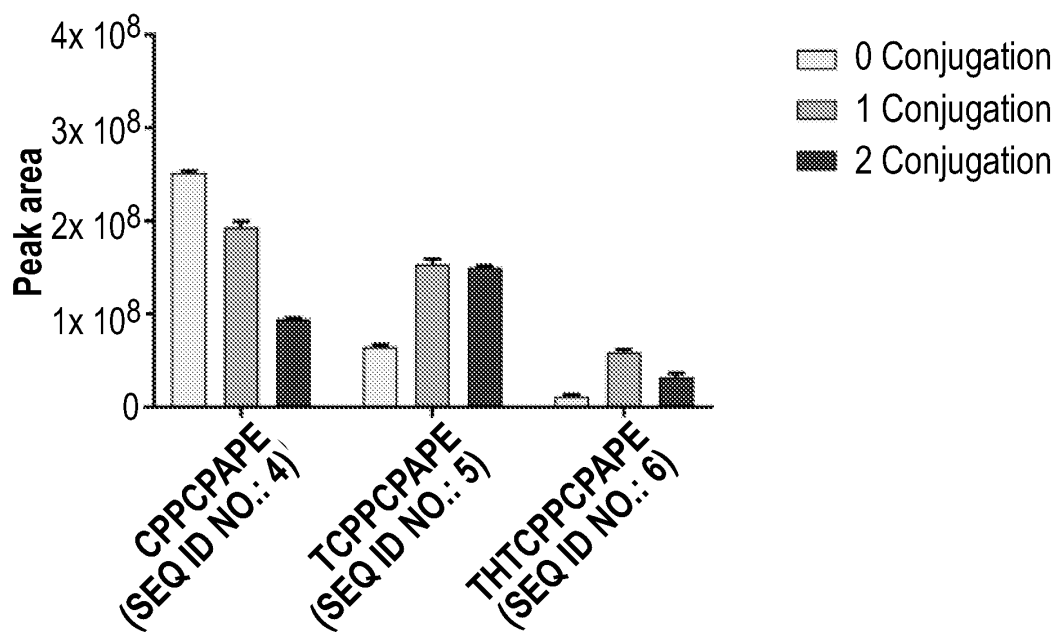


FIG. 16

	MAB1-L19 (n=3)		MAB1-L18 (n=3)	
	Low DAR (ESI, intact: 1.9)		High DAR (ESI, intact: 3.6)	
	Measured conjugation%	CV%	Measured conjugation%	CV%
GEC	12.1 ± 0.1	0.9	24.0 ± 0.3	1.1
SCDK	23.1 ± 0.5	2.0	51.6 ± 0.6	1.2
Hinge Region Peptides	73.0 ± 0.4	0.6	95.0 ± 0.2	0.2
DAR	2.16 ± 0.01	0.5	3.41 ± 0.02	0.6

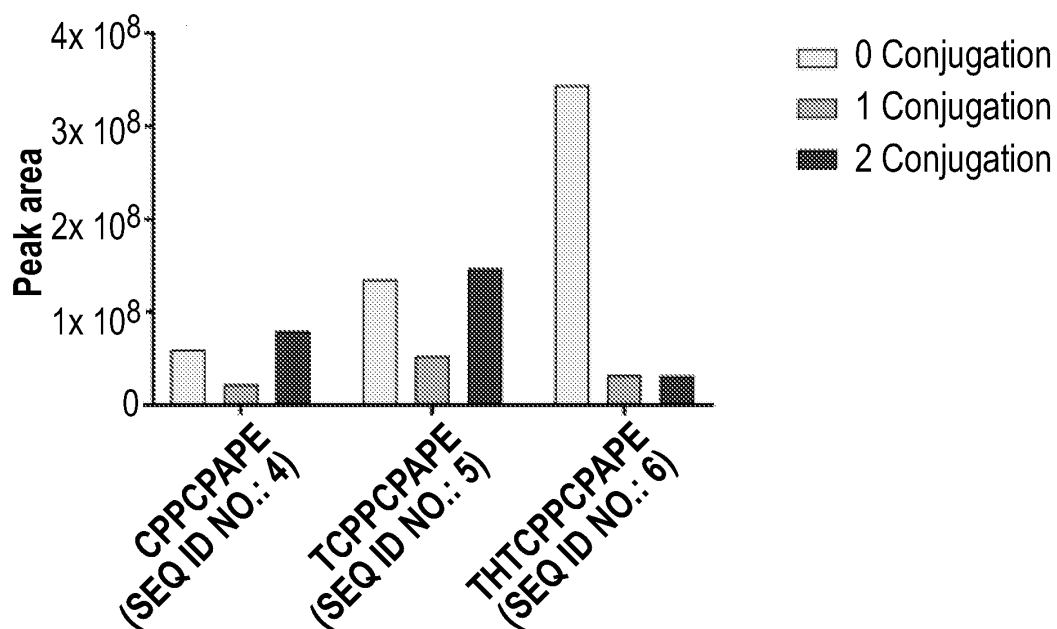
FIG. 17

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Hinge Region Peptide

FIG. 18A



Hinge Region Peptide

FIG. 18B

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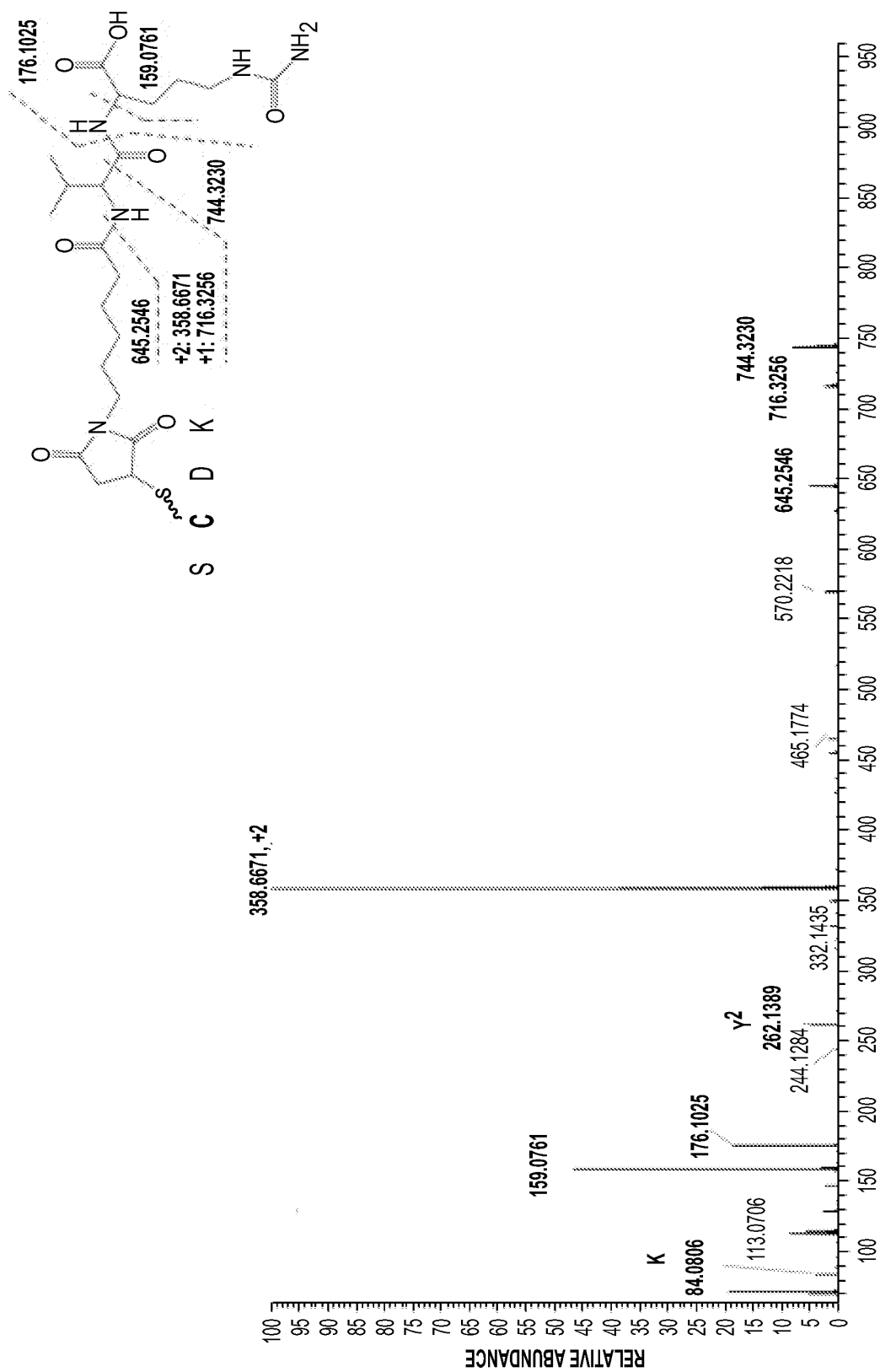


FIG. 19B

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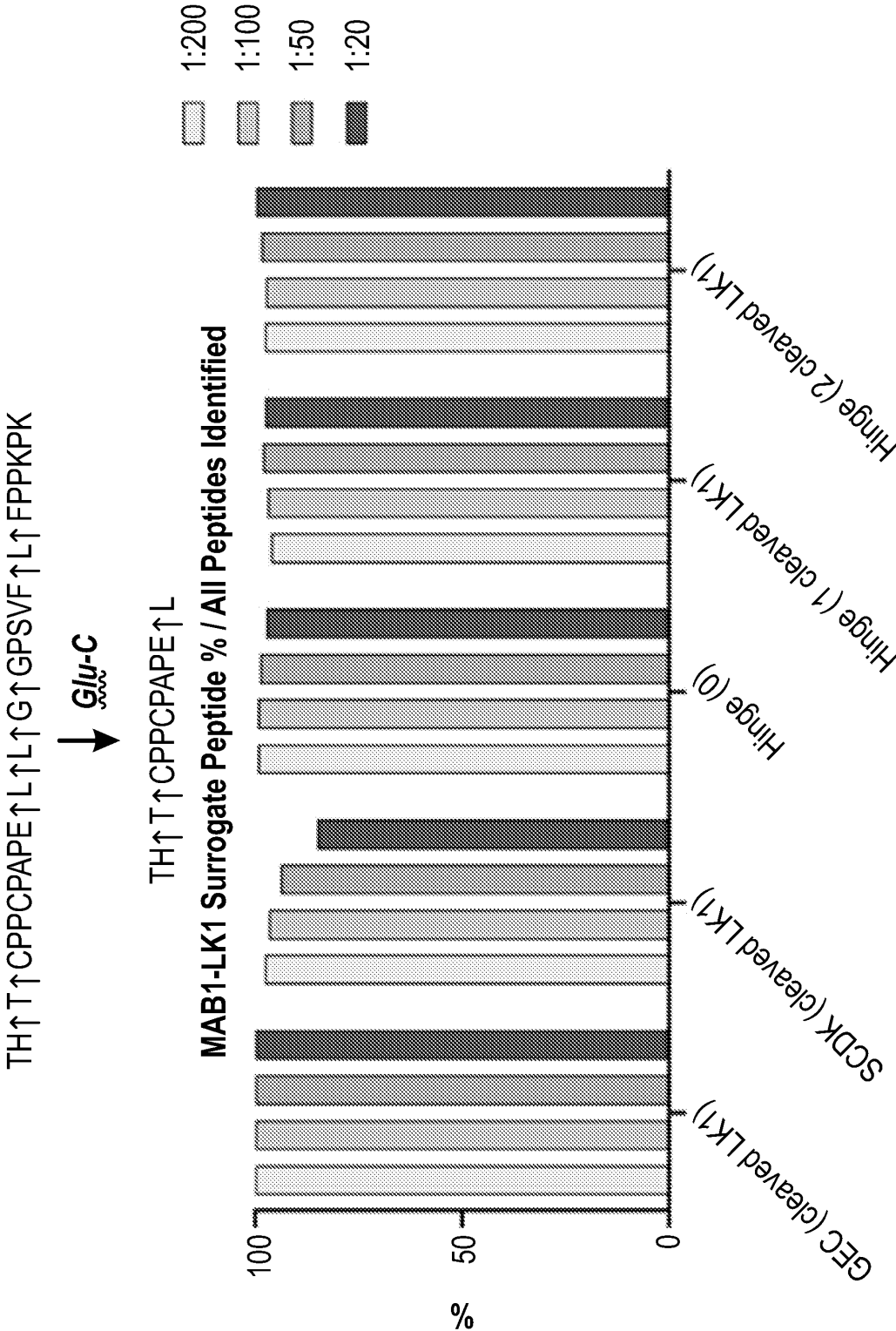


FIG. 20A

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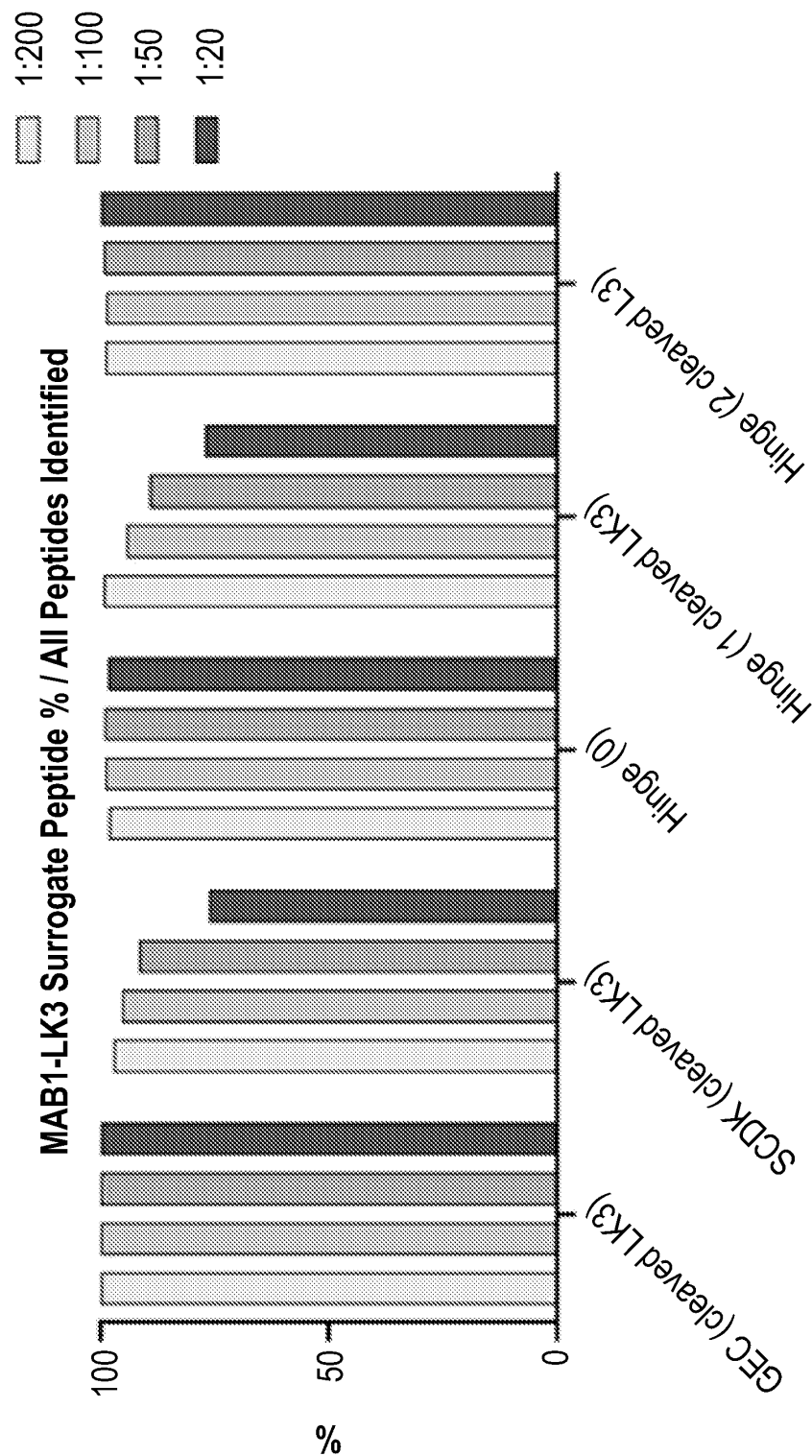


FIG. 20B

MAB1-LK1 Papain:Substrate Ratio

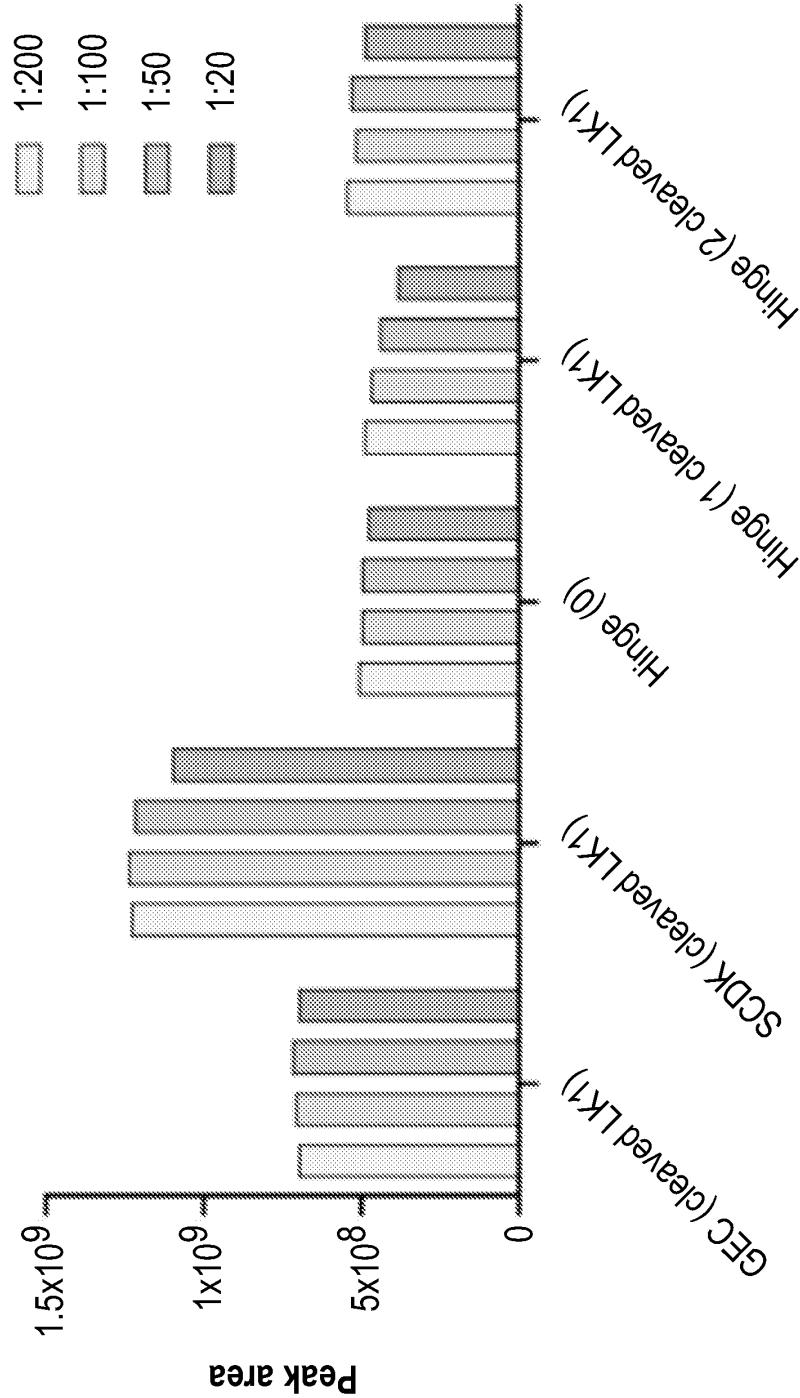


FIG. 21A

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MAB1-LK3 Papain:Substrate Ratio

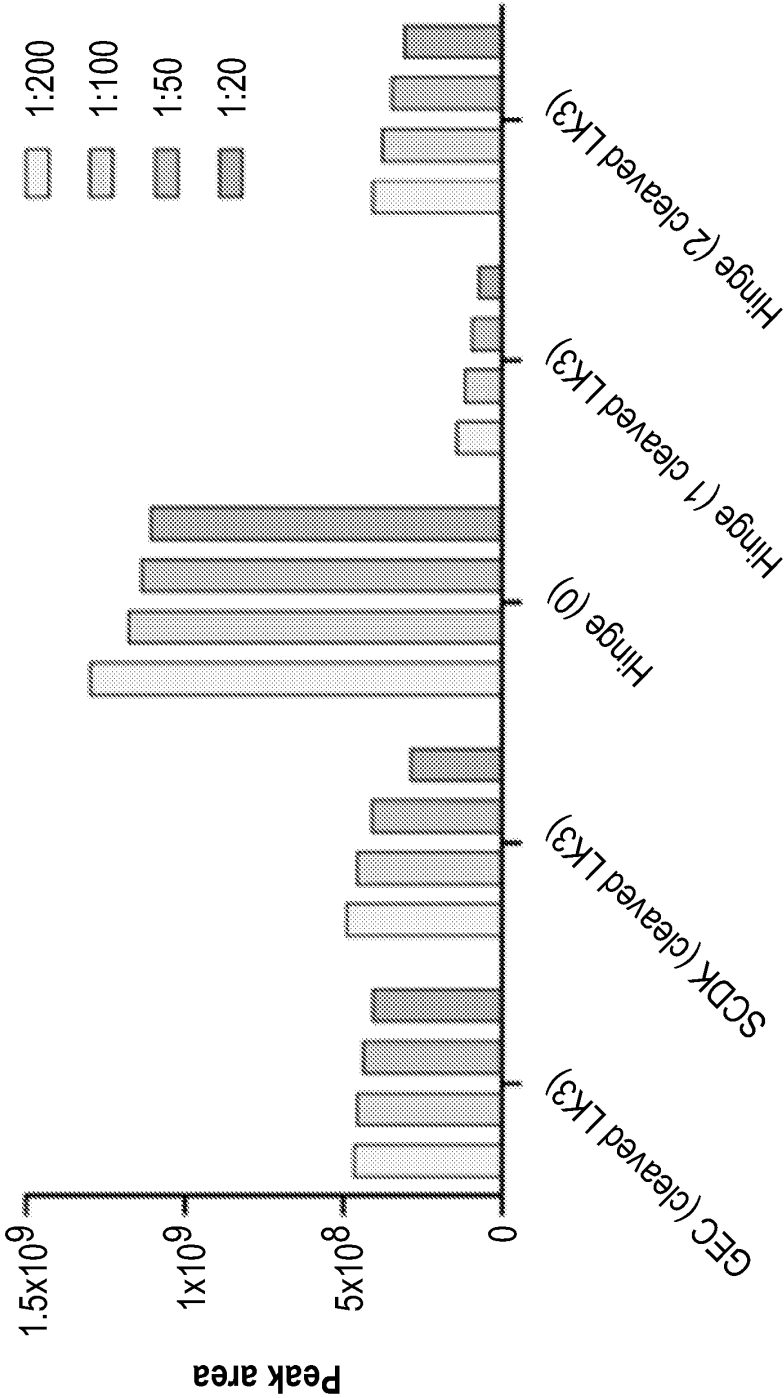


FIG. 21B

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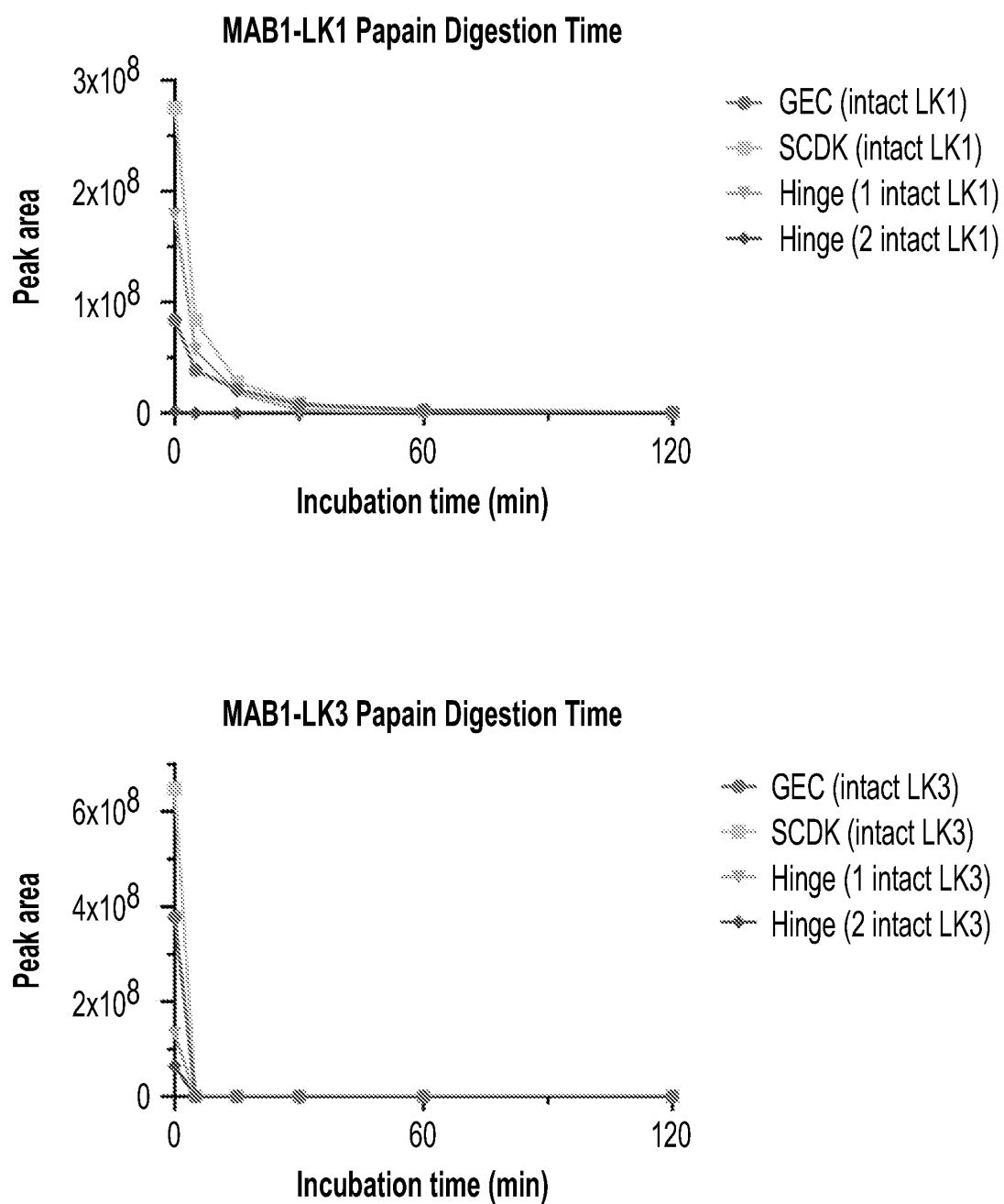


FIG. 22

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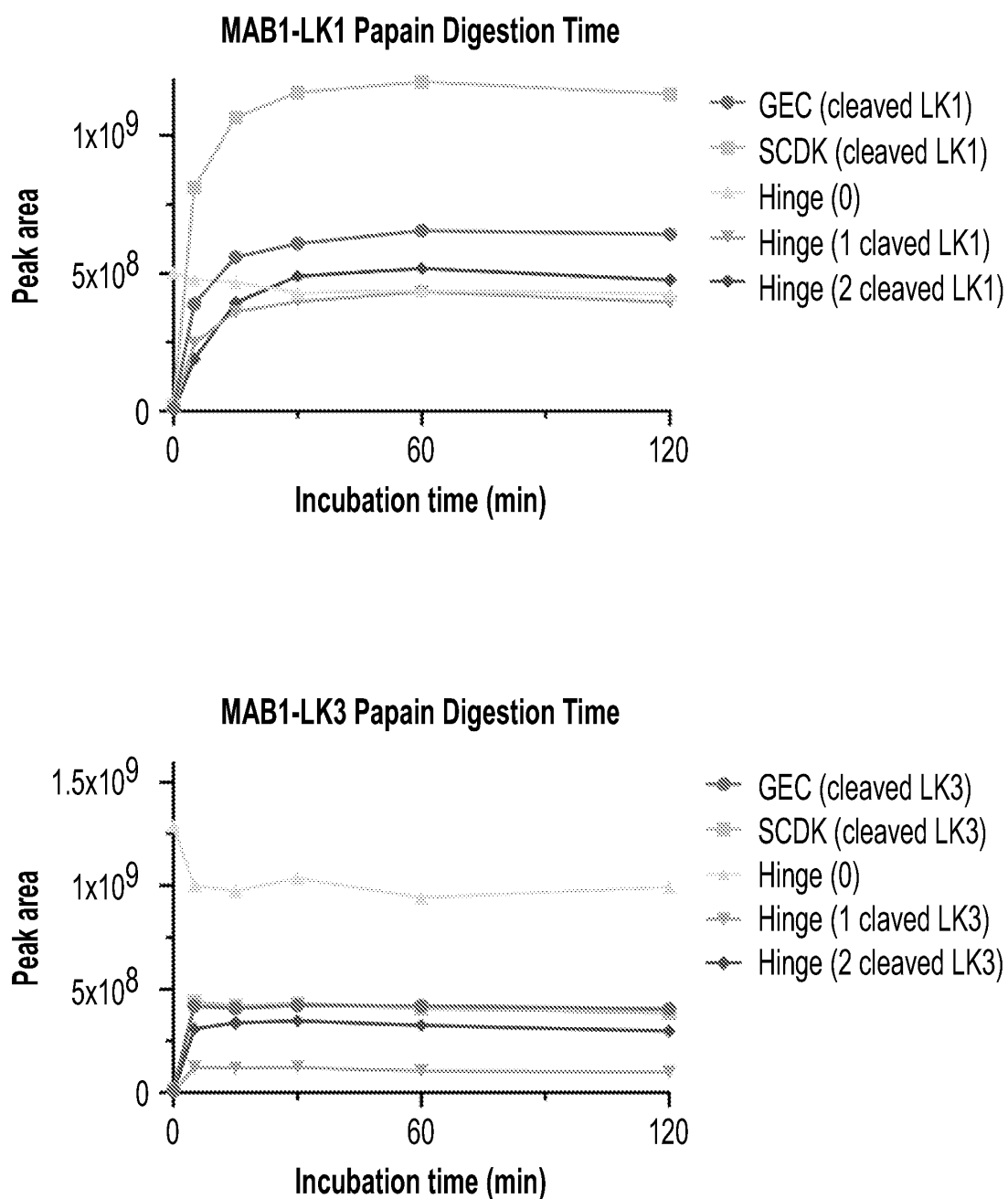


FIG. 23

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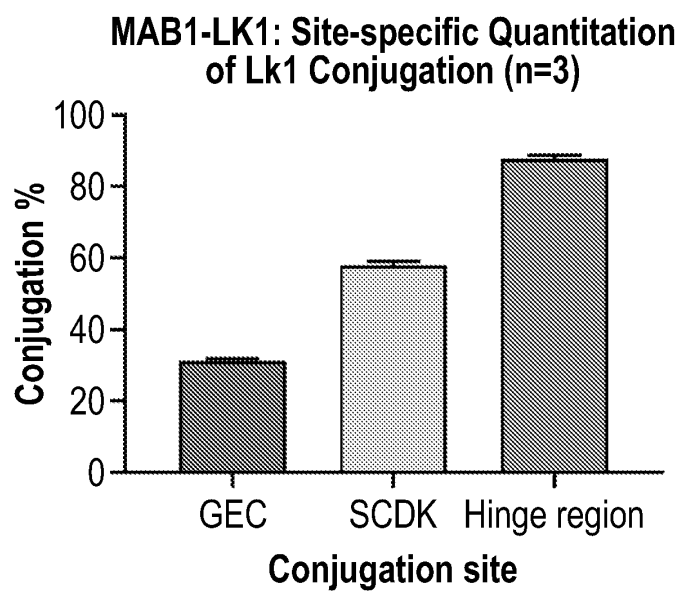


FIG. 24A

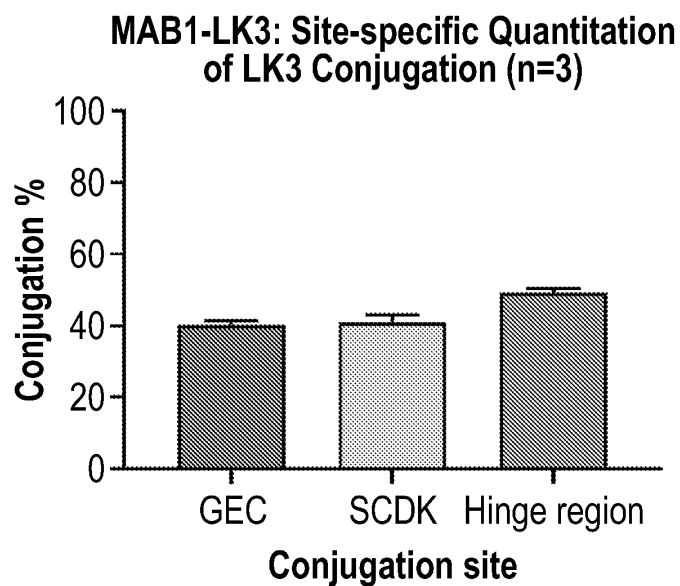


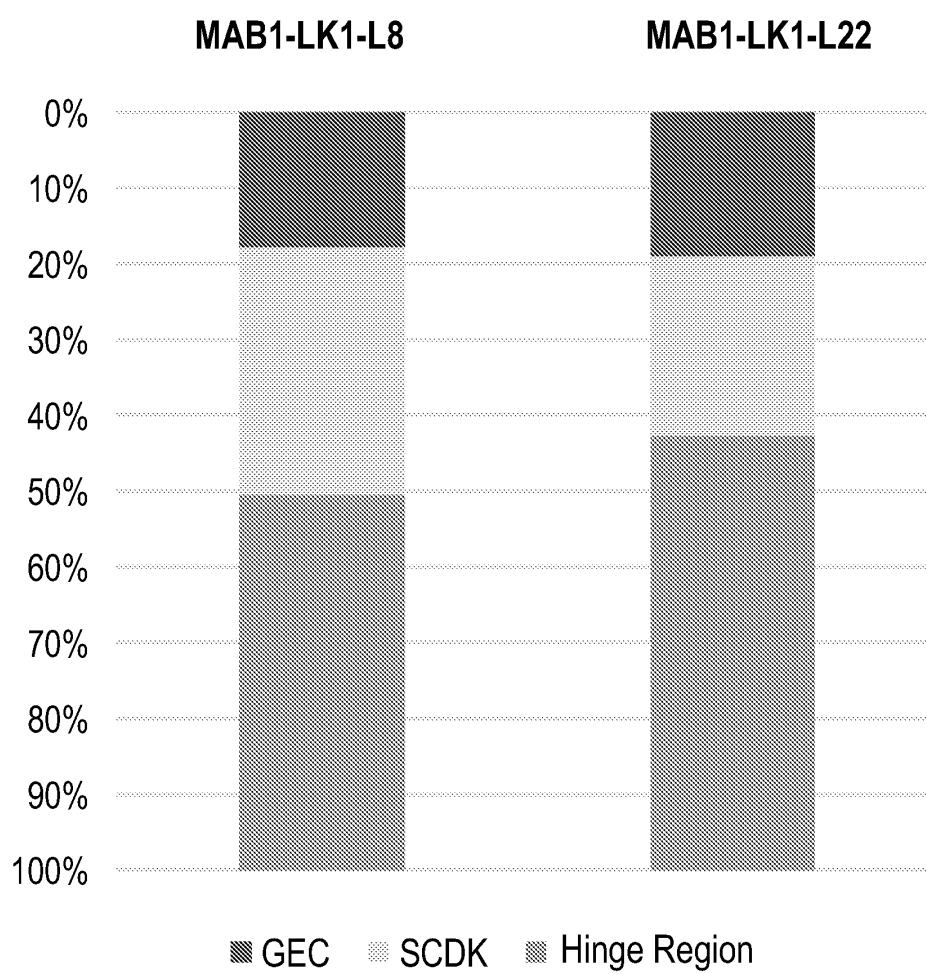
FIG. 24B

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Conjugation site	MAB1-LK3-L9 (ESI: 2.2)				MAB1-LK3-L8 (ESI: 3.6)			
	Intra-day (n=3)		Intra-day (n=3 x 3/day)		Intra-day (n=3)		Intra-day (n=3 x 3/day)	
	Ratio	RSD%	Ratio	RSD%	Ratio	RSD%	Ratio	RSD%
GEC	0.40	2.8%	0.40	1.7%	0.31	0.4%	0.31	2.9%
SCDK	0.41	3.4%	0.43	4.5%	0.58	0.9%	0.57	0.9%
Hinge region (--CPPCPAPE--)	0.49	1.5%	0.48	2.1%	0.88	0.9%	0.89	4.0%
DAR	2.61	2.4%	2.63	1.8%	3.54	0.8%	3.56	2.6%
Hinge region peptide % (0 durg)	71.3%	0.5%	71.8%	0.7%	39.8%	1.3%	39.2%	4.2%
Hinge region peptide % (1 durg)	8.2%	0.7%	8.3%	1.0%	32.9%	0.7%	32.3%	1.5%
Hinge region peptide % (2 durg)	20.5%	1.7%	20.0%	2.5%	27.3%	1.1%	28.4%	6.9%

FIG. 25

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**FIG. 26**

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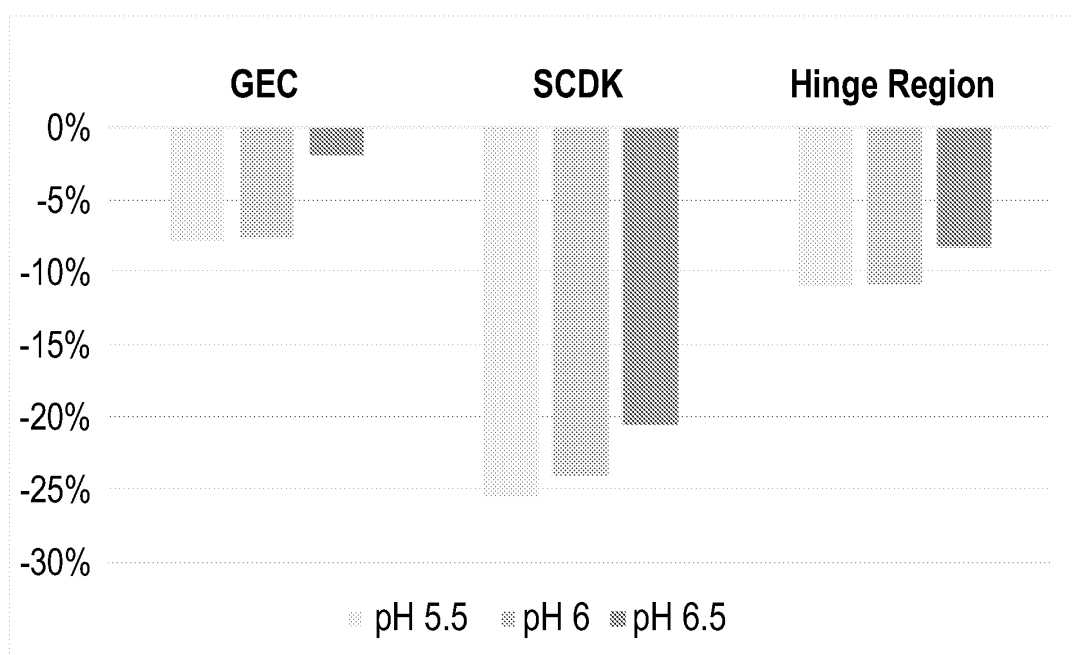


FIG. 27

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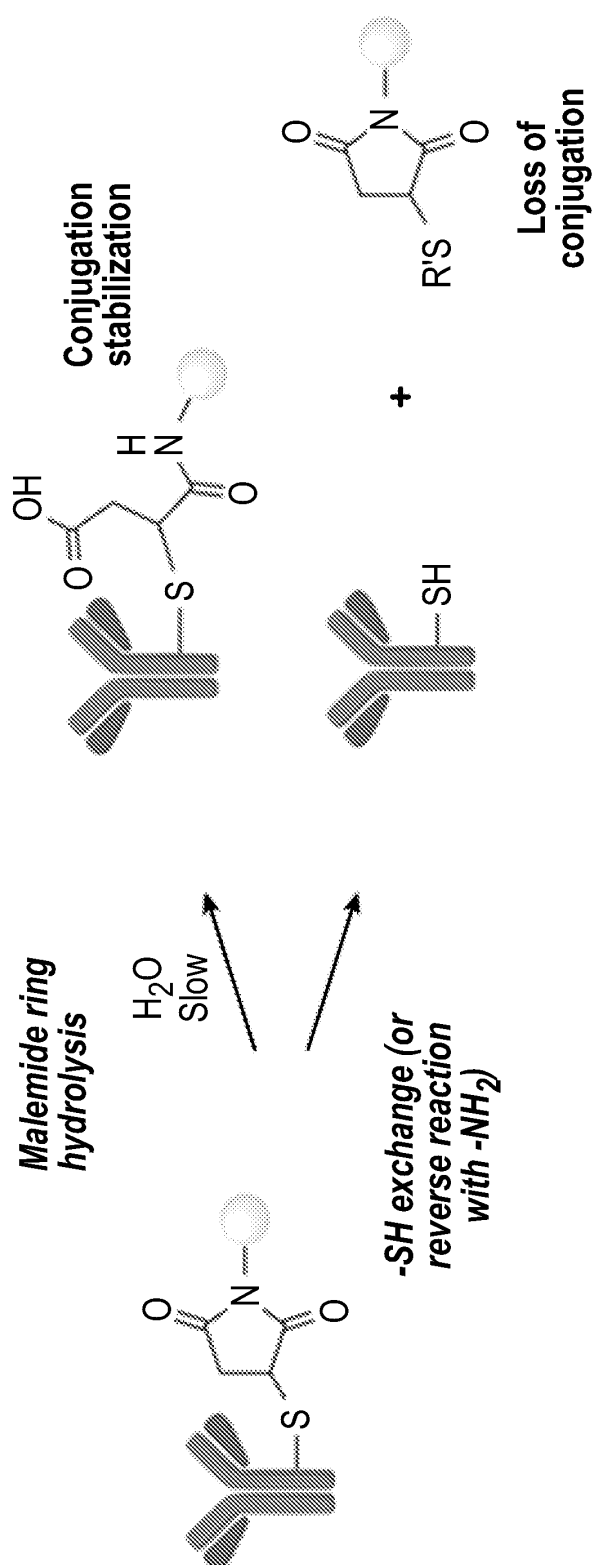


FIG. 28

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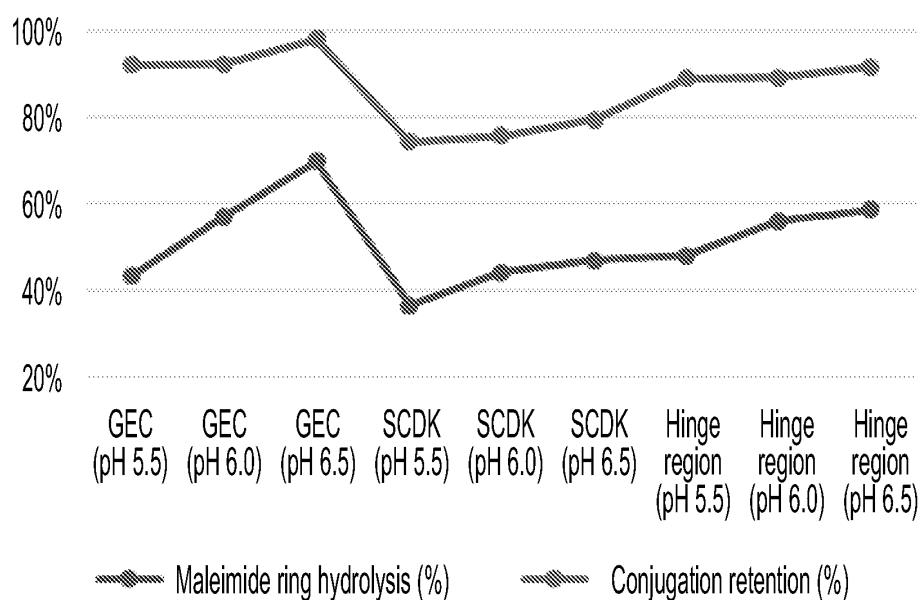


FIG. 29A

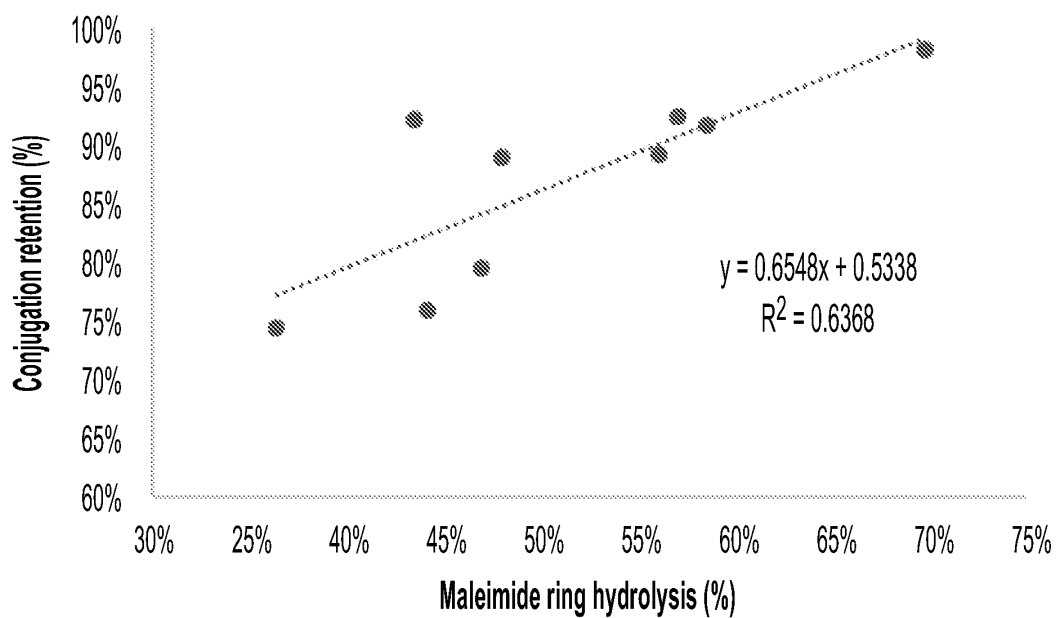


FIG. 29B

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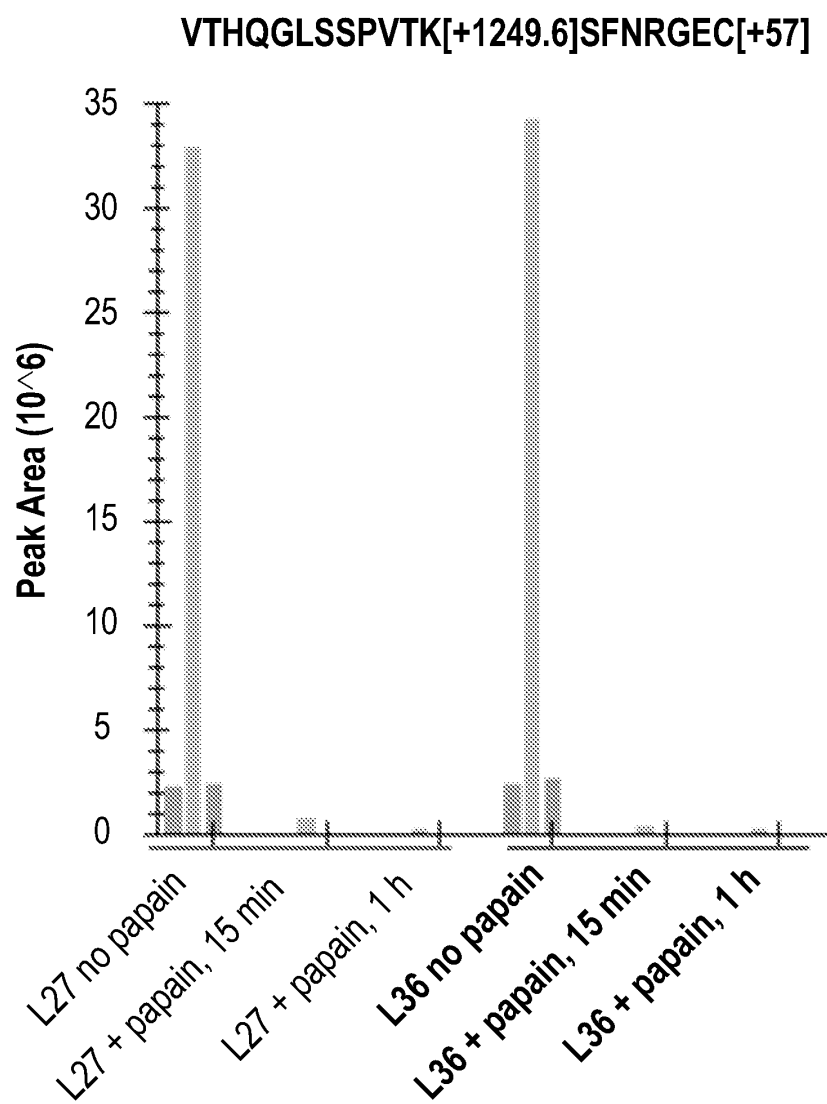


FIG. 30A

VTHQGLSSPVTK[+384.2]SFNRGEC[+57]

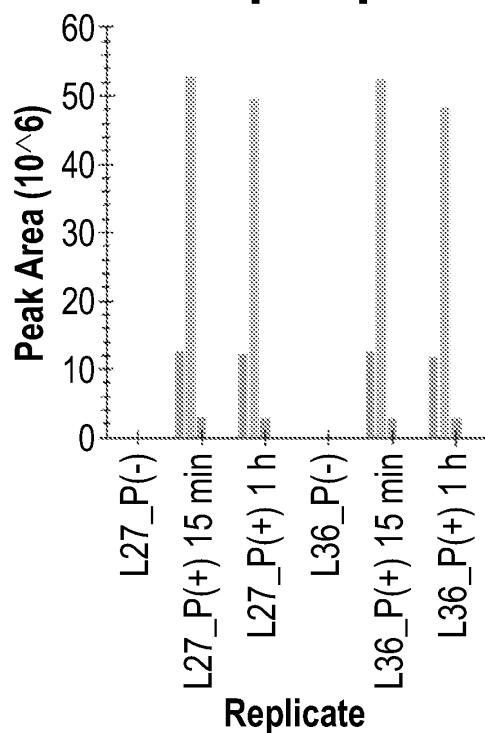


FIG. 30B

VTHQGLSSPVTKSFNRGEC[+57]

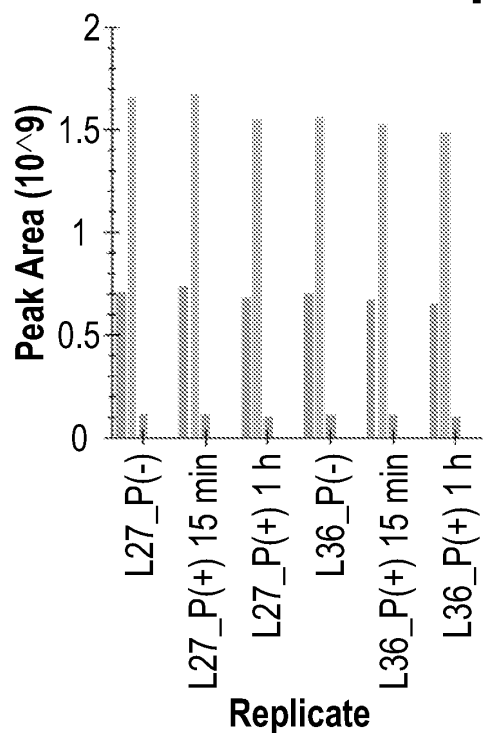
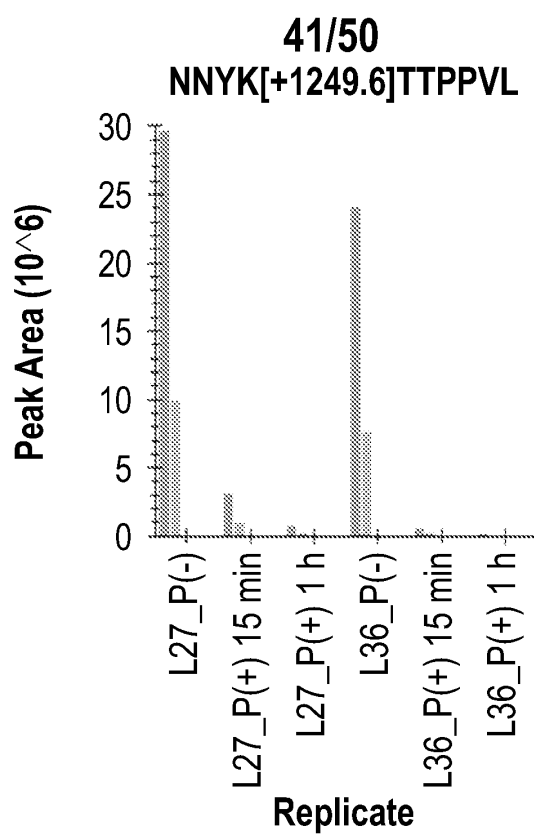
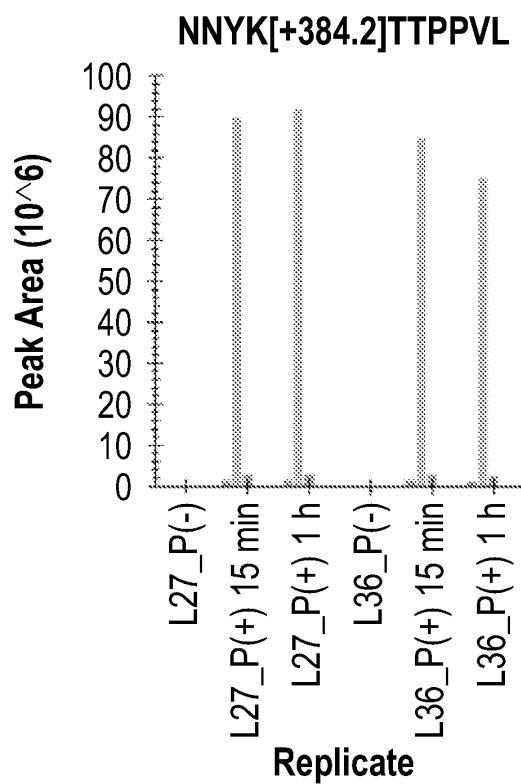


FIG. 30C

**FIG. 31A****FIG. 31B**

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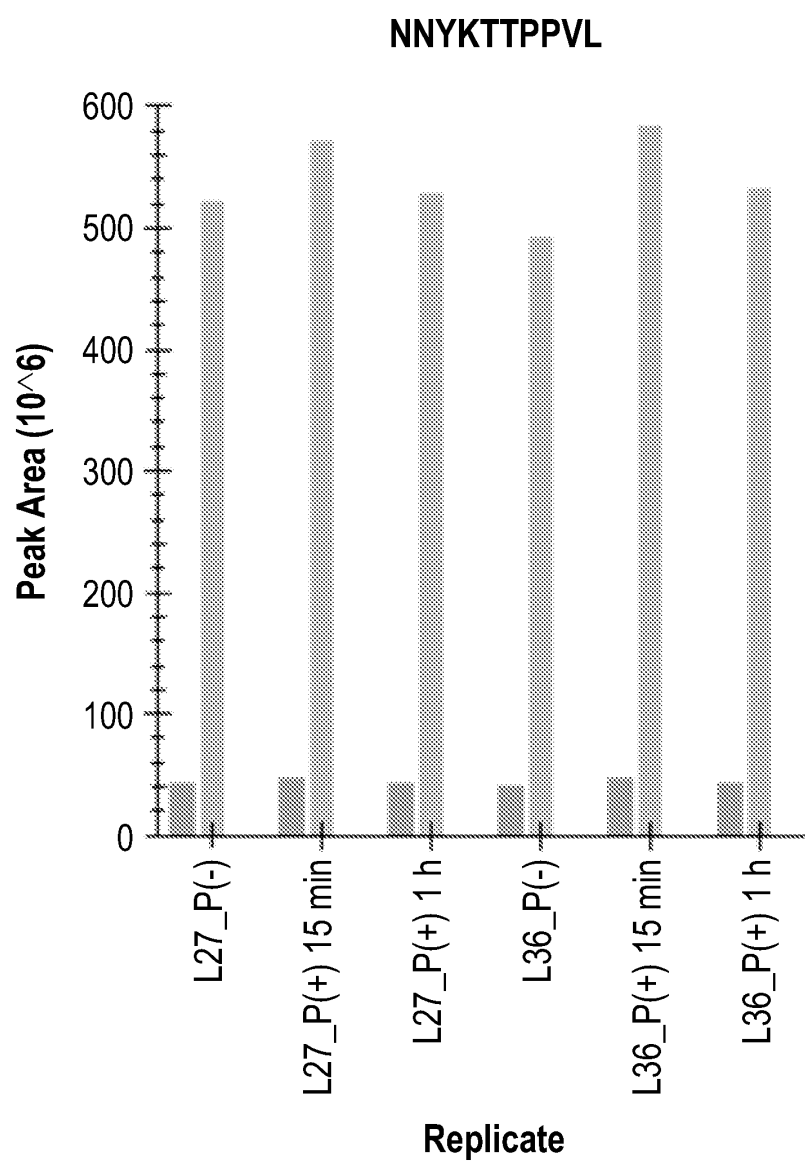
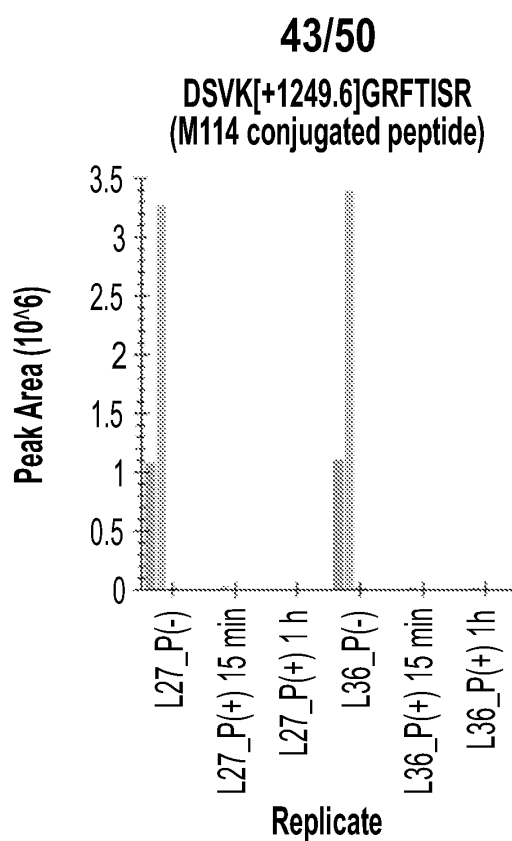
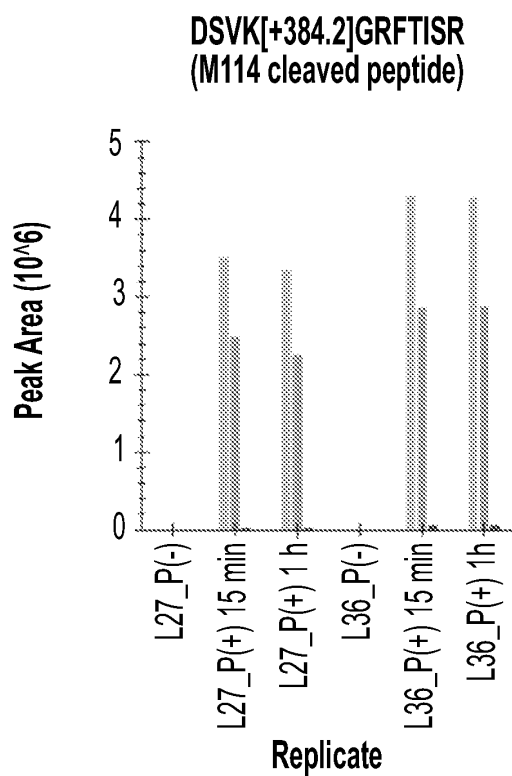
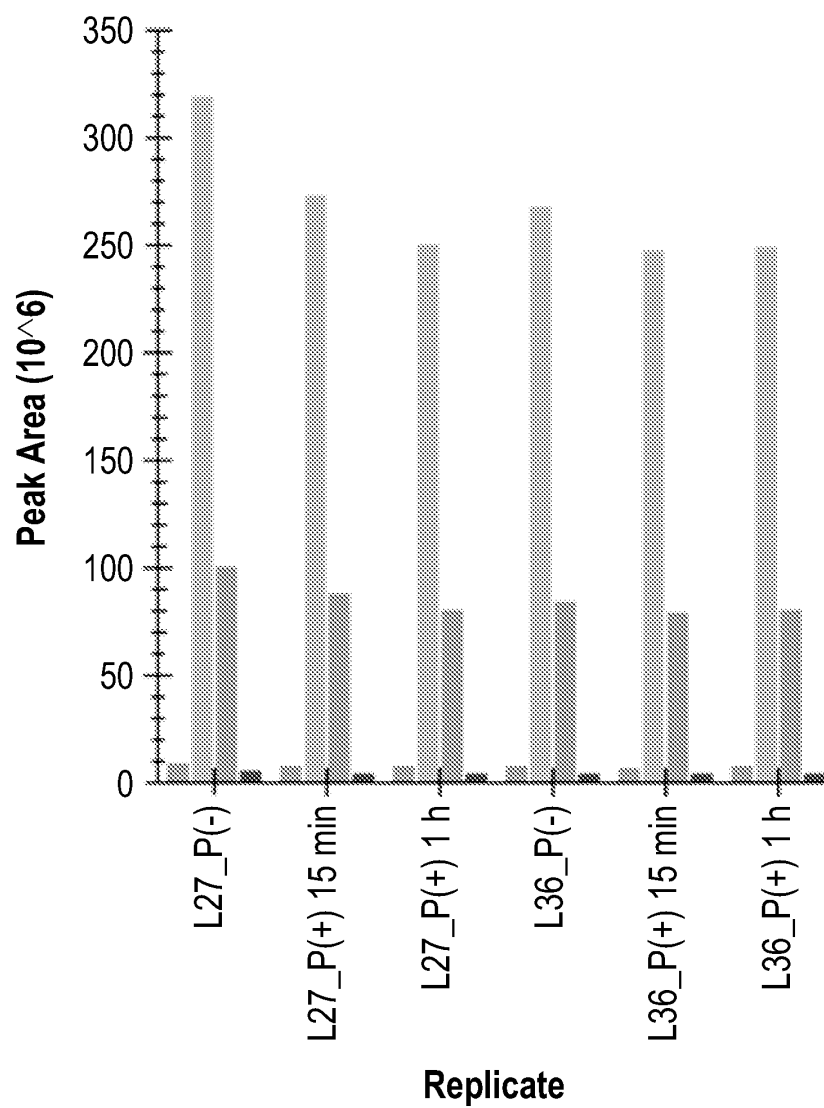
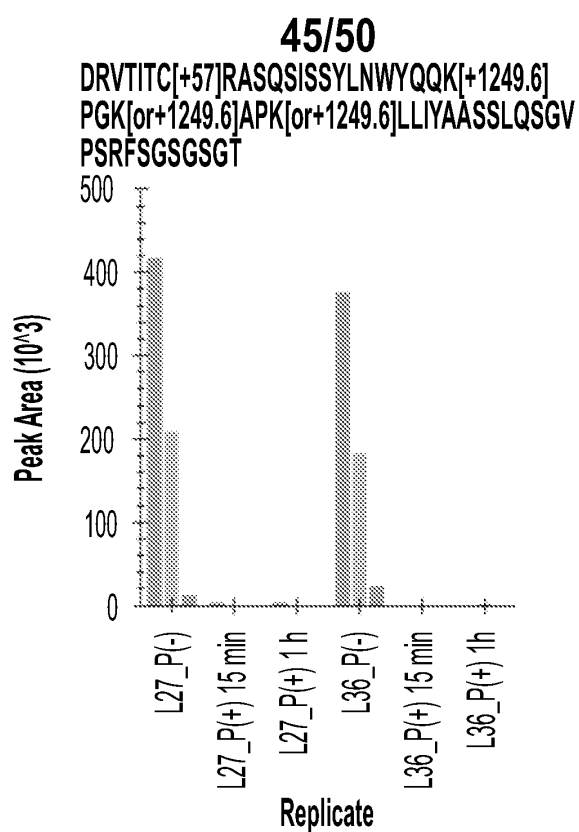
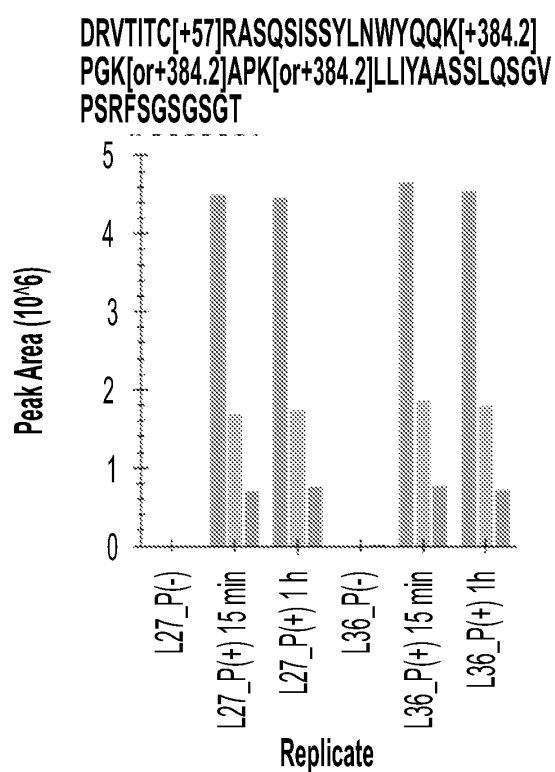


FIG. 31C

**FIG. 32A****FIG. 32B**

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DSVKGRFTISR
(unconjugated peptide)**FIG. 32C**

**FIG. 33A****FIG. 33B**

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DRVITTC[+57]RASQSISSYLNWYQQKPGKA
PKLLIYAASSLQSGVPSRFSGSGSGT

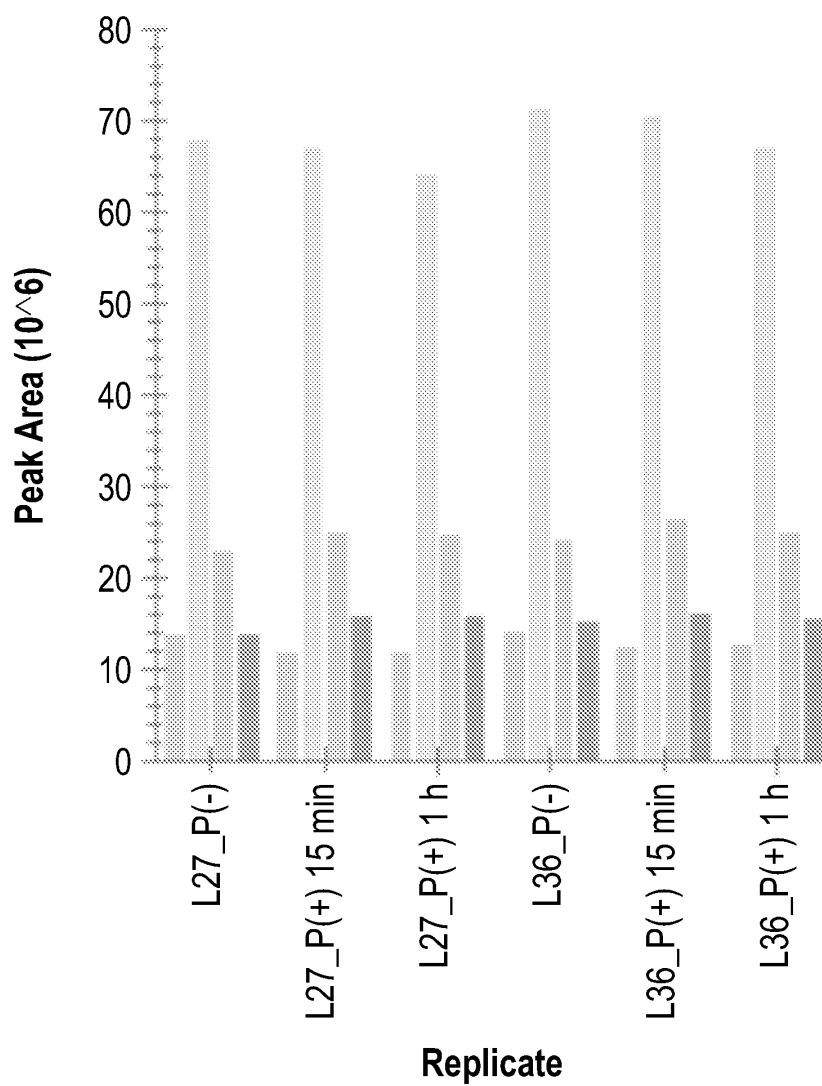


FIG. 33C

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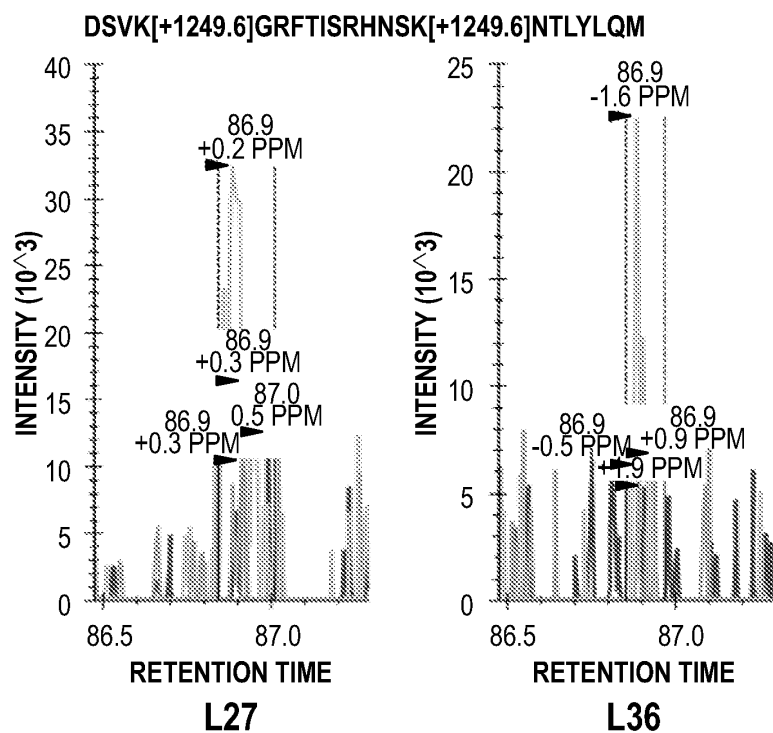


FIG. 34A

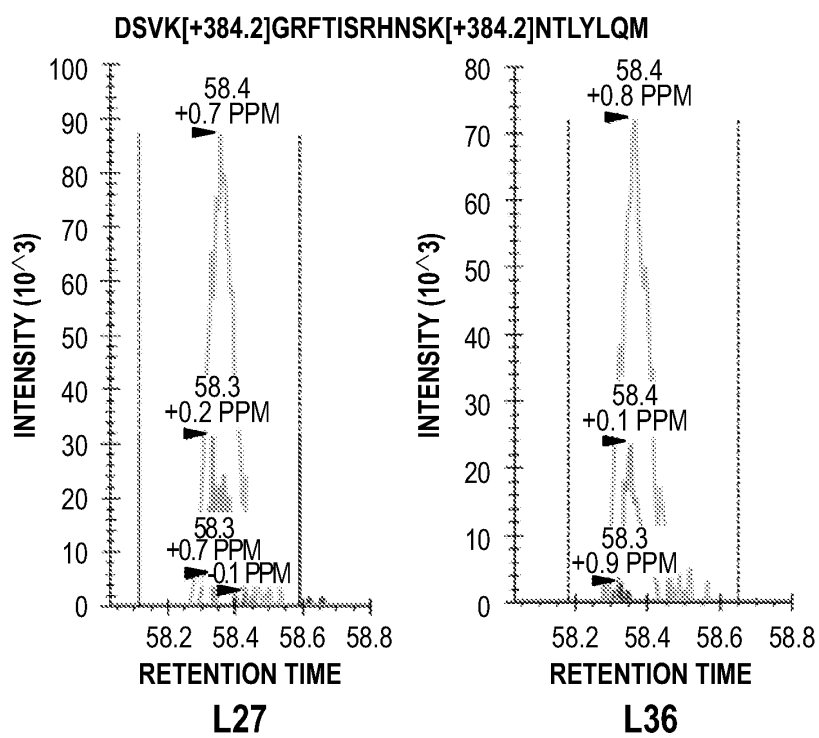


FIG. 34B

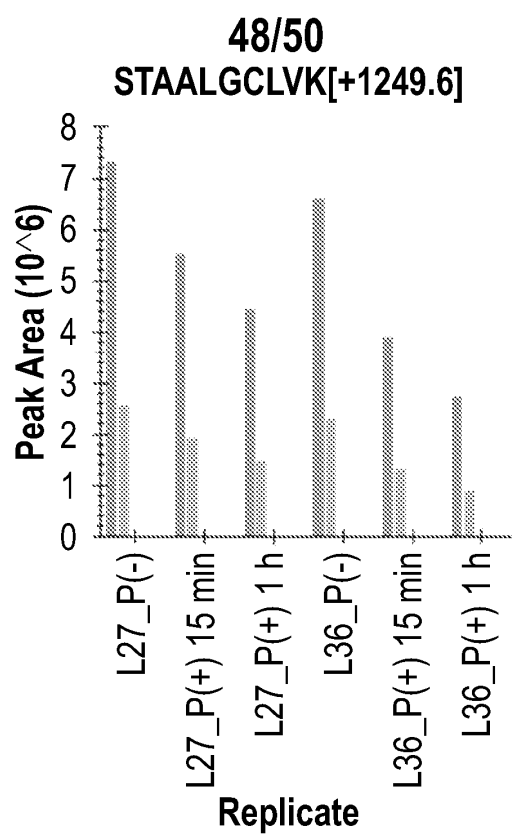


FIG. 35A

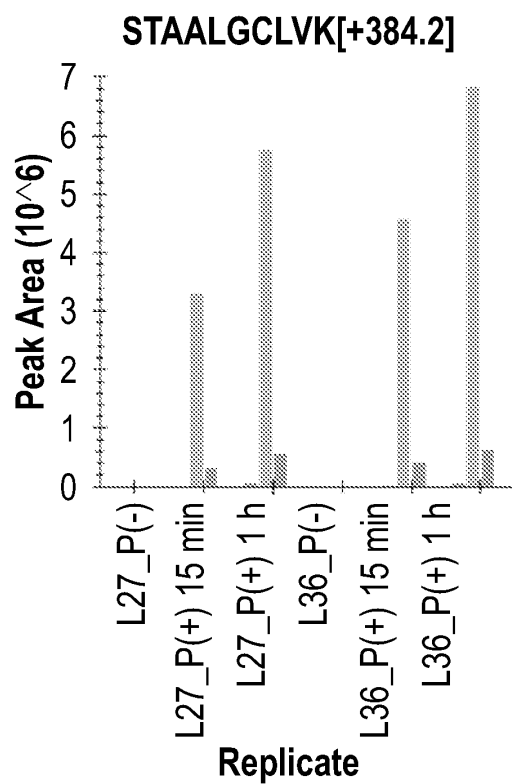


FIG. 35B

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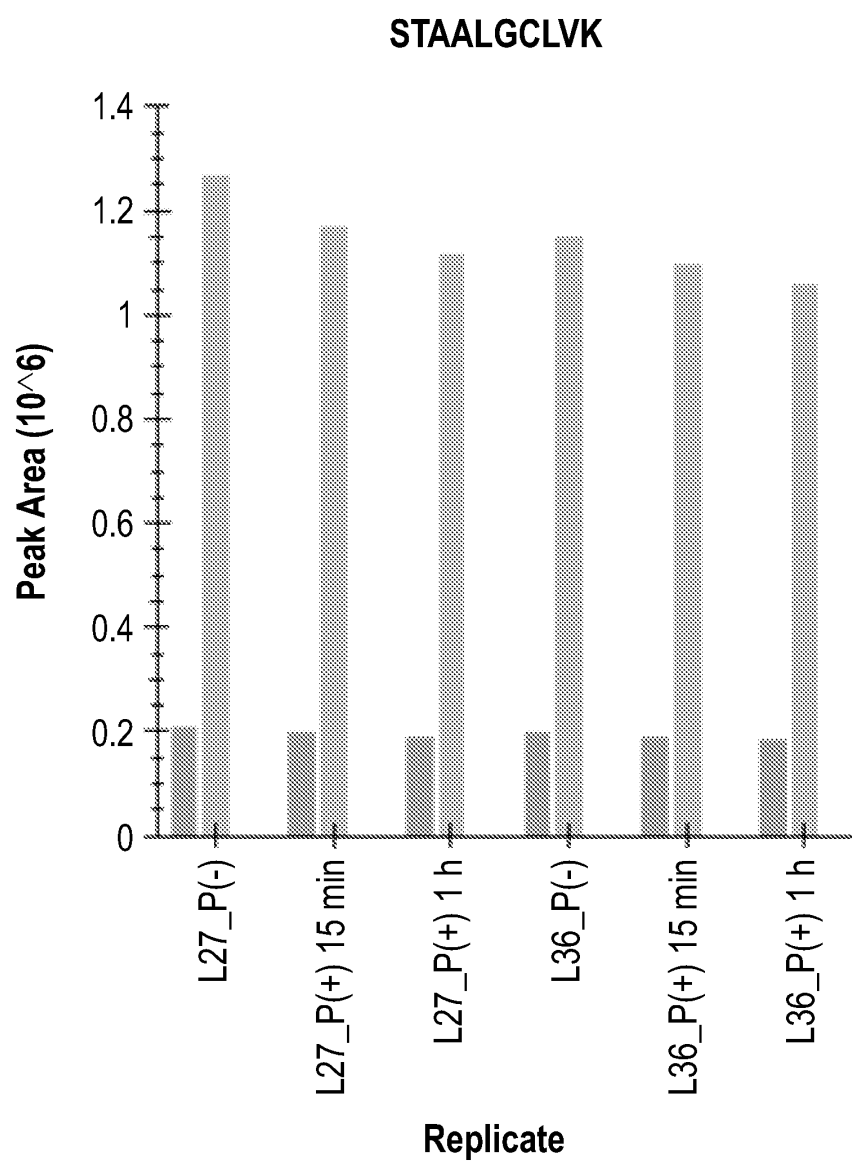
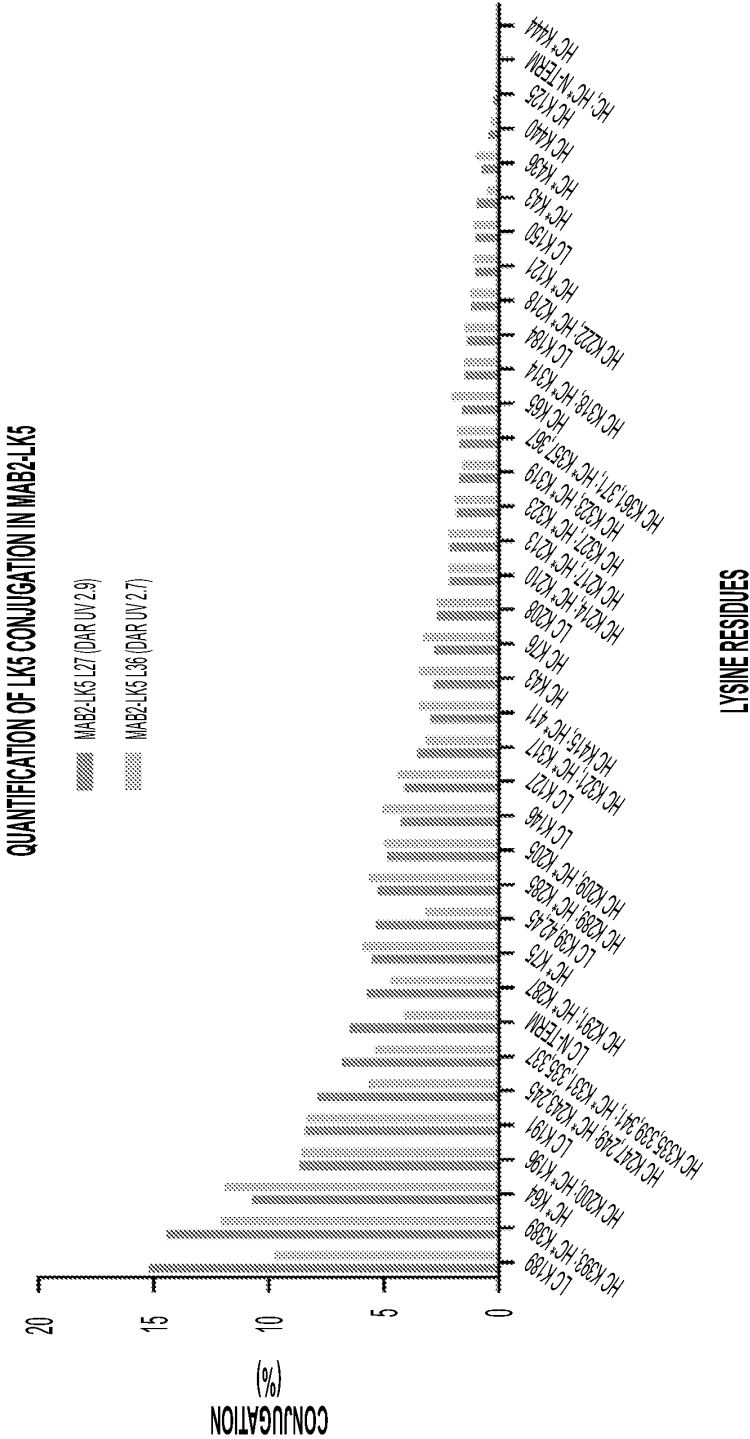


FIG. 35C

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	MAB2-LK5 L27	MAB2-LK5 L36
DAR (PADD)	2.86	2.60
DAR (UV)	2.9	2.7

FIG. 36