

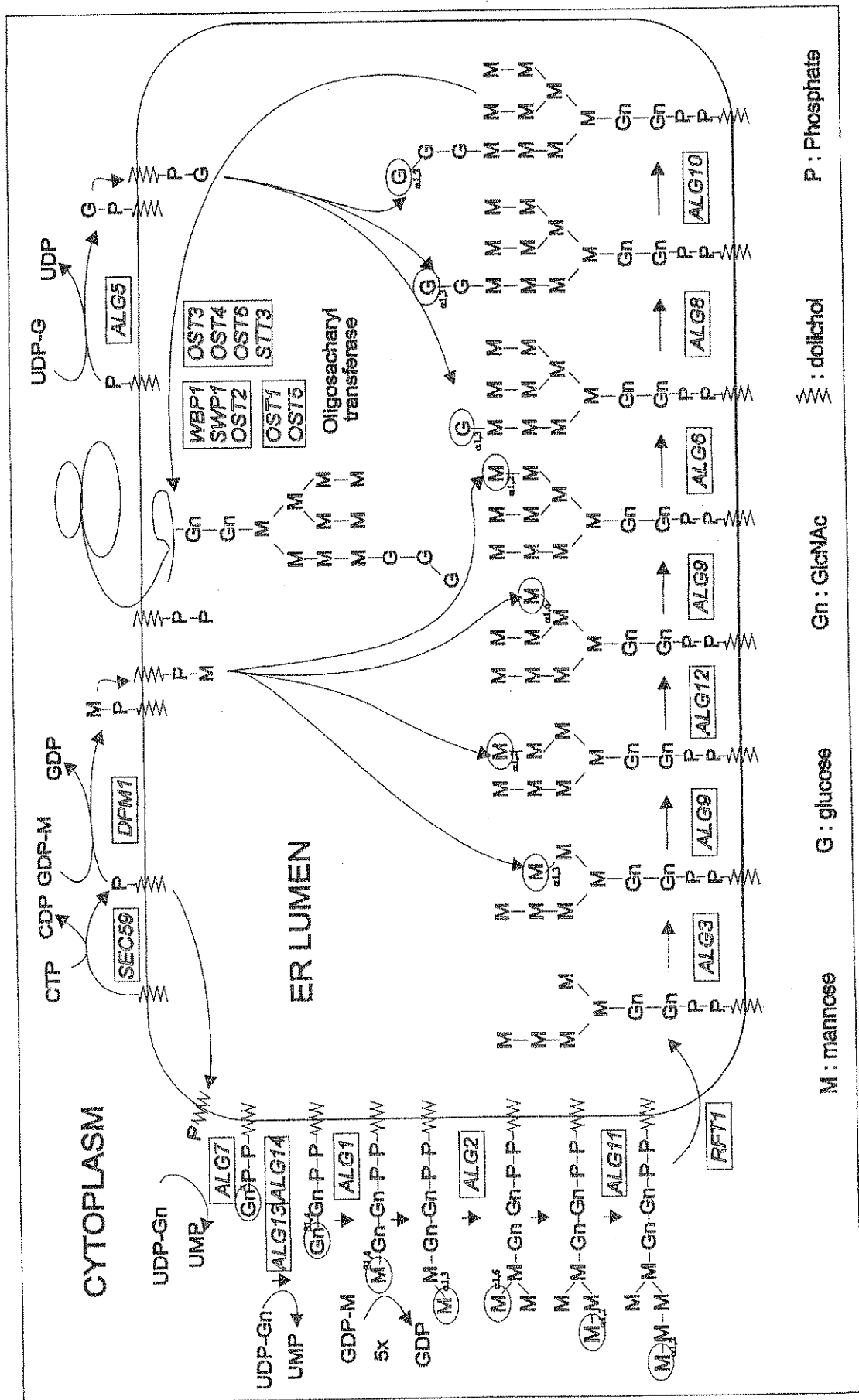


FIG. 1

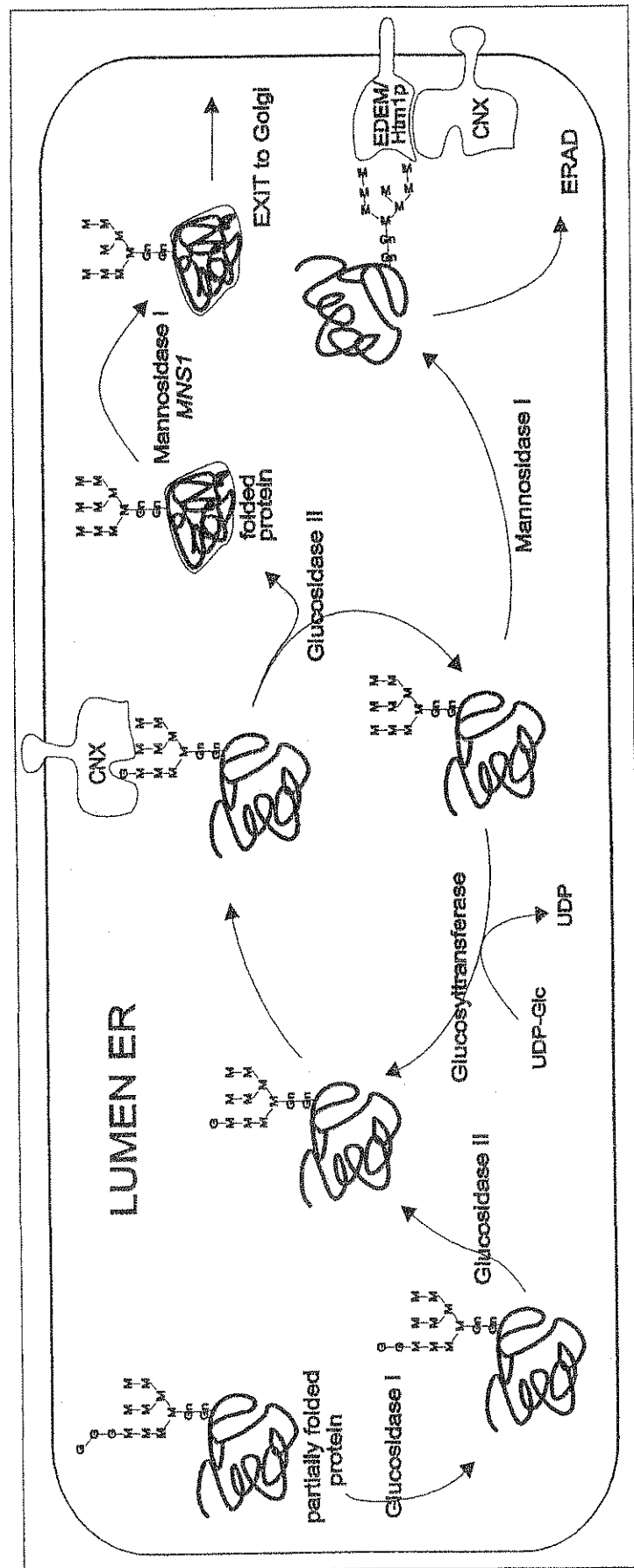


FIG. 2

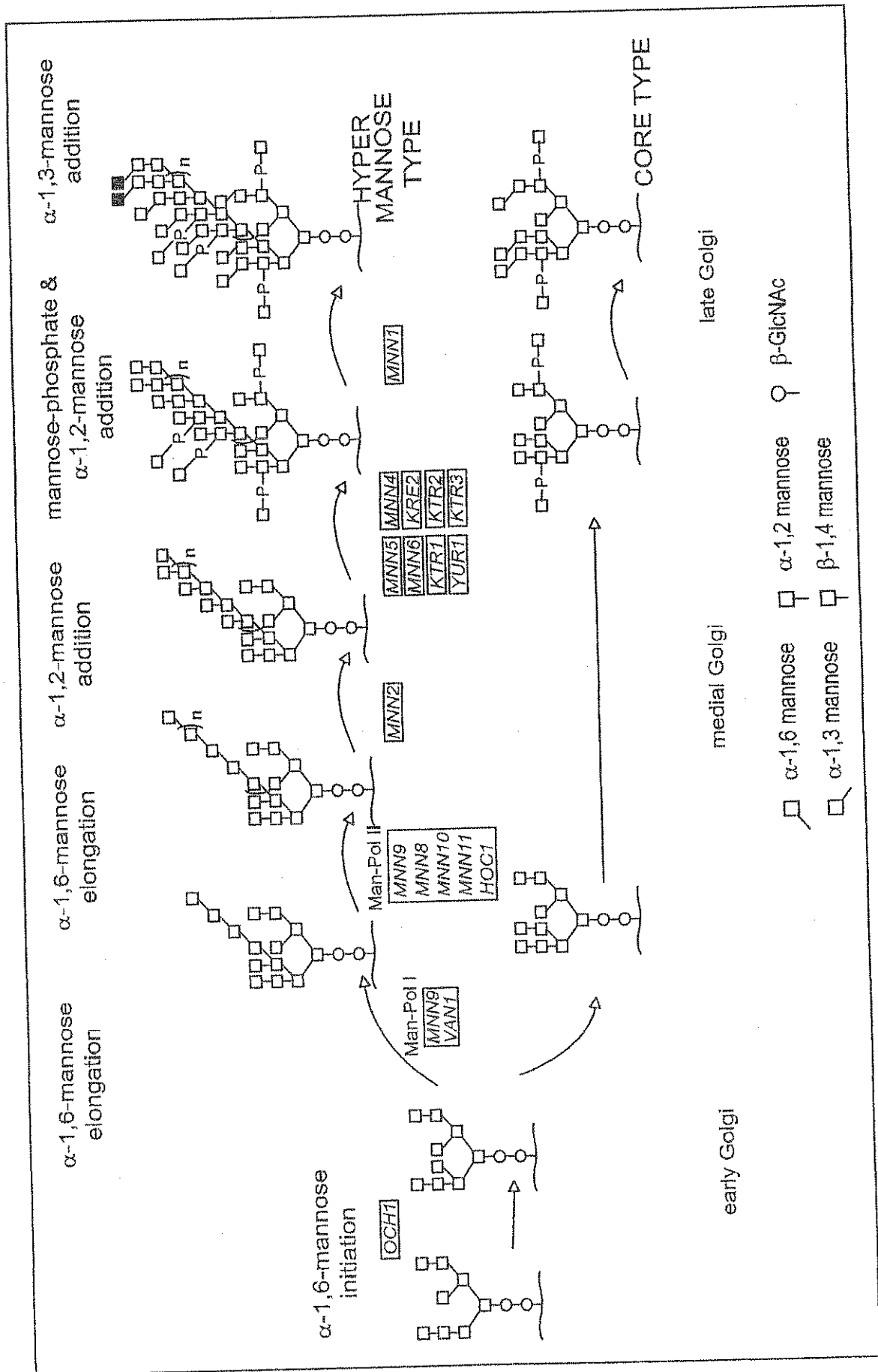
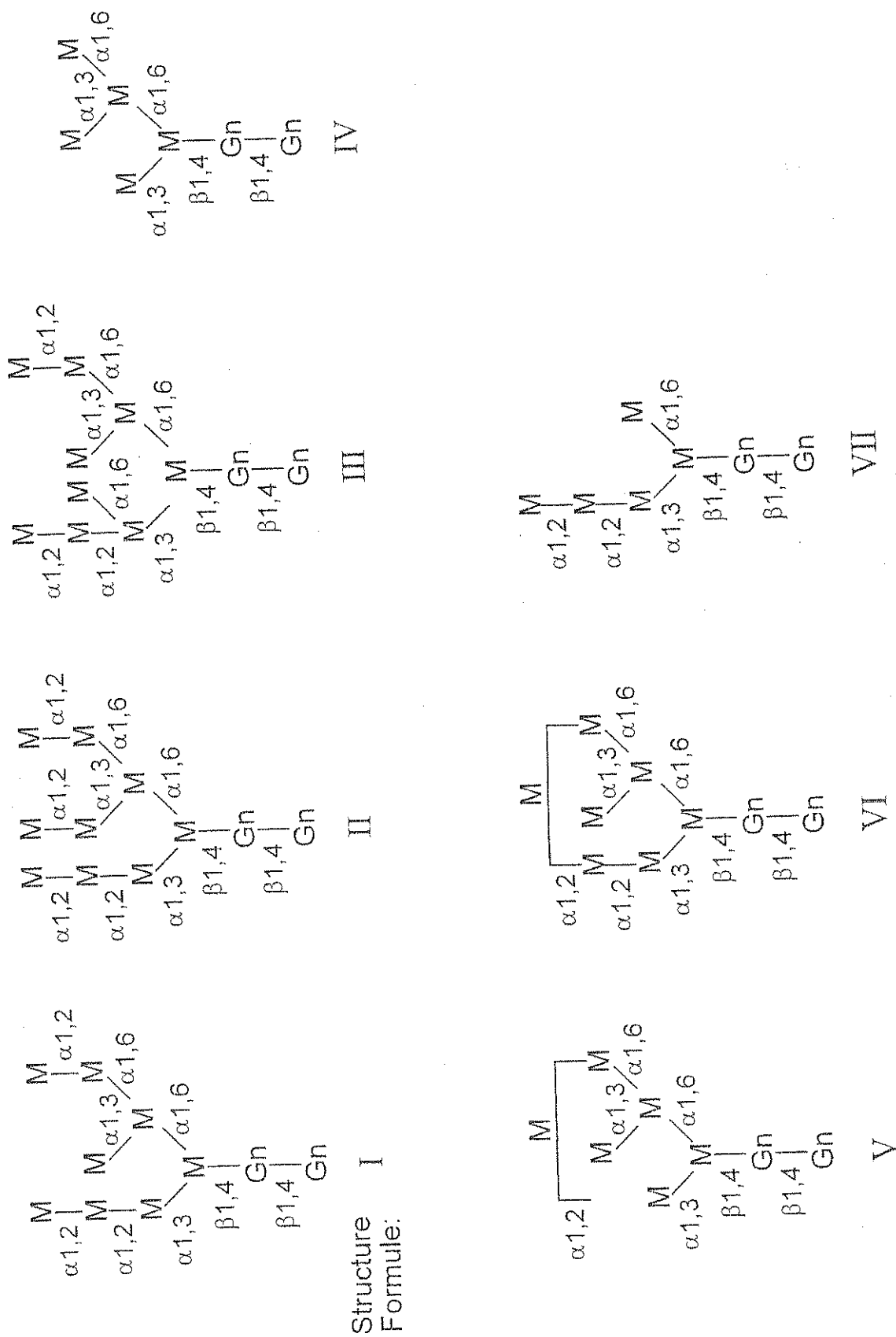
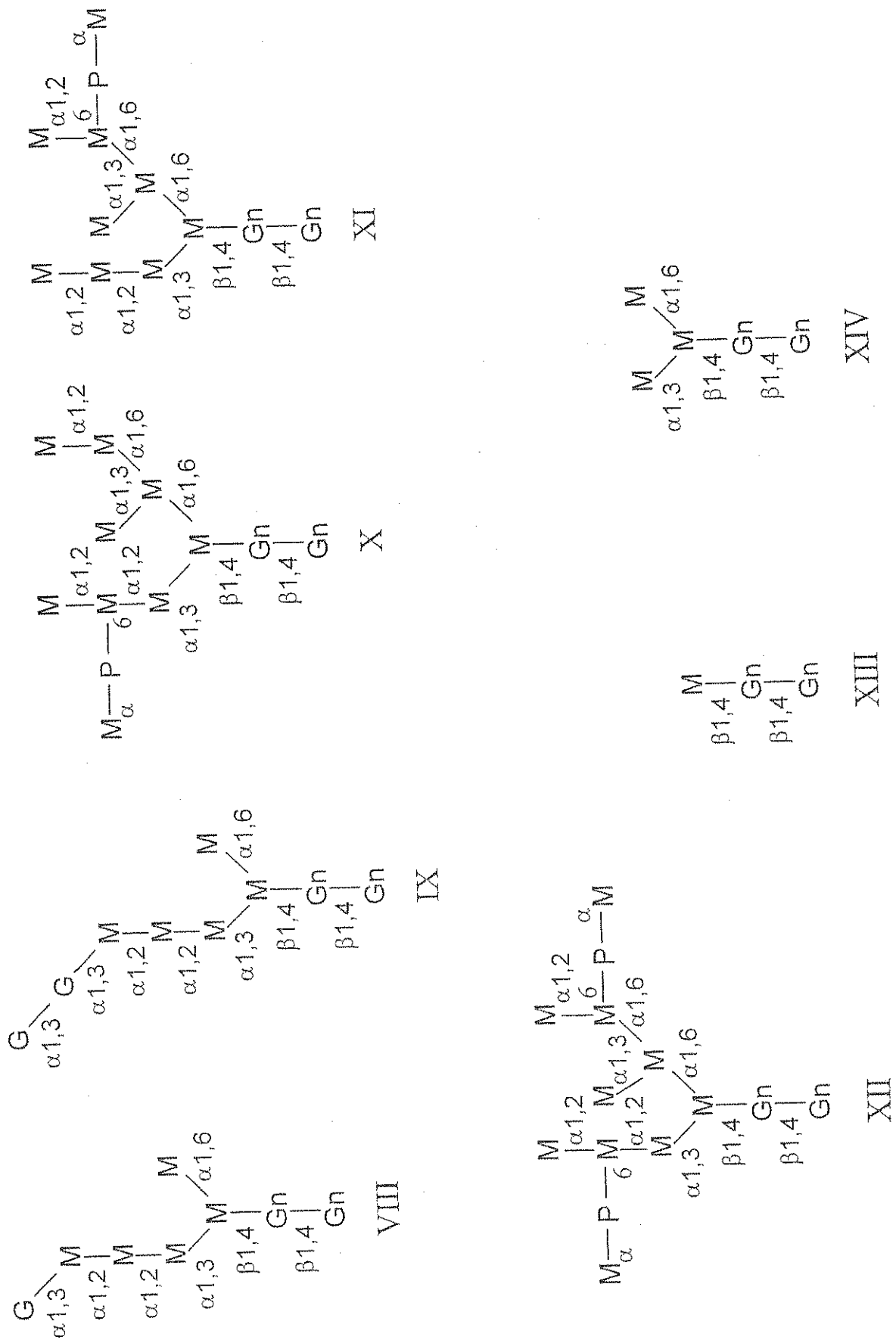


FIG. 3





M: Mannose G: Glucose Gn: N-acetylglucosamine P: Phosphate FIG.4(Continuous)

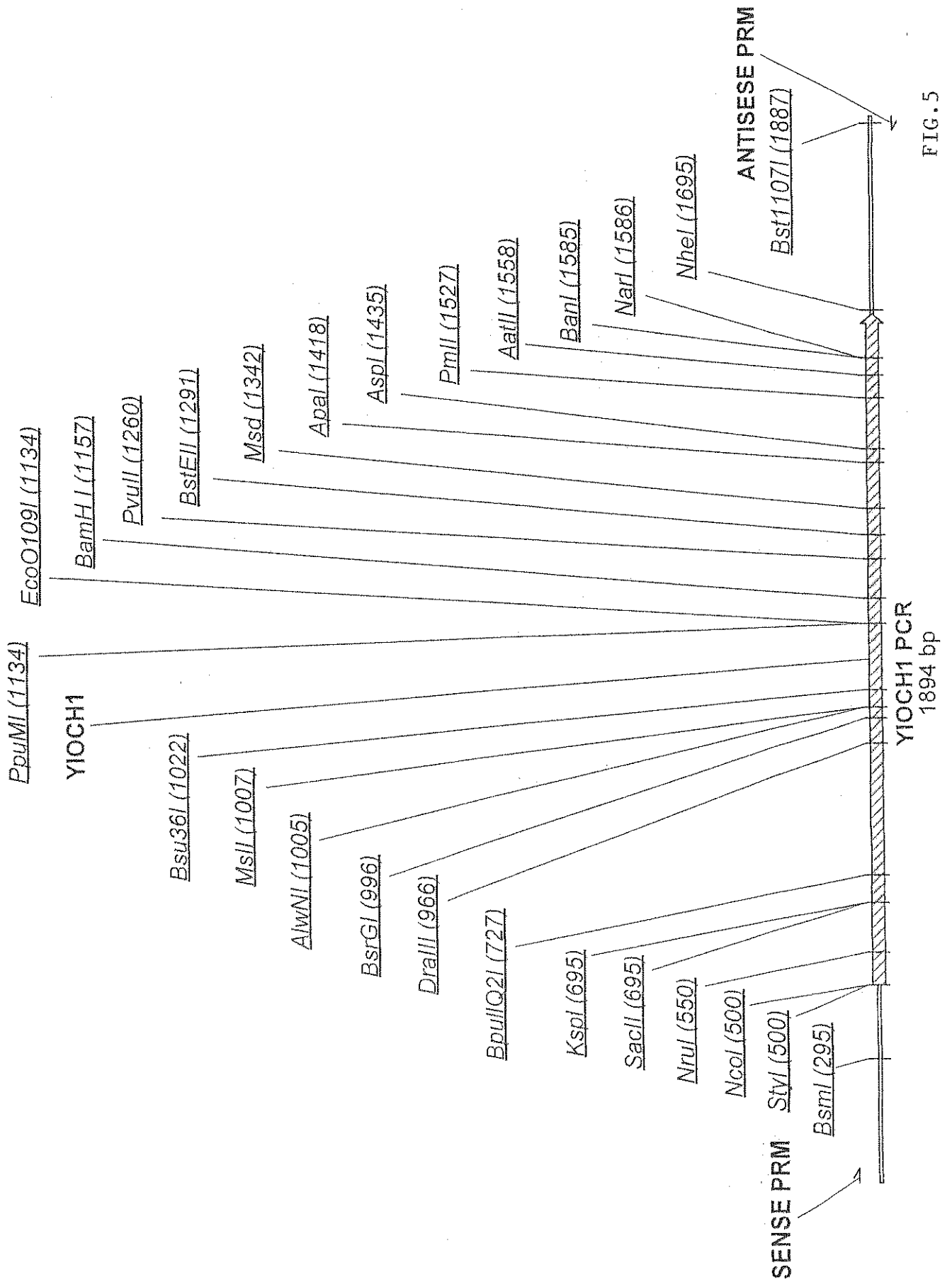
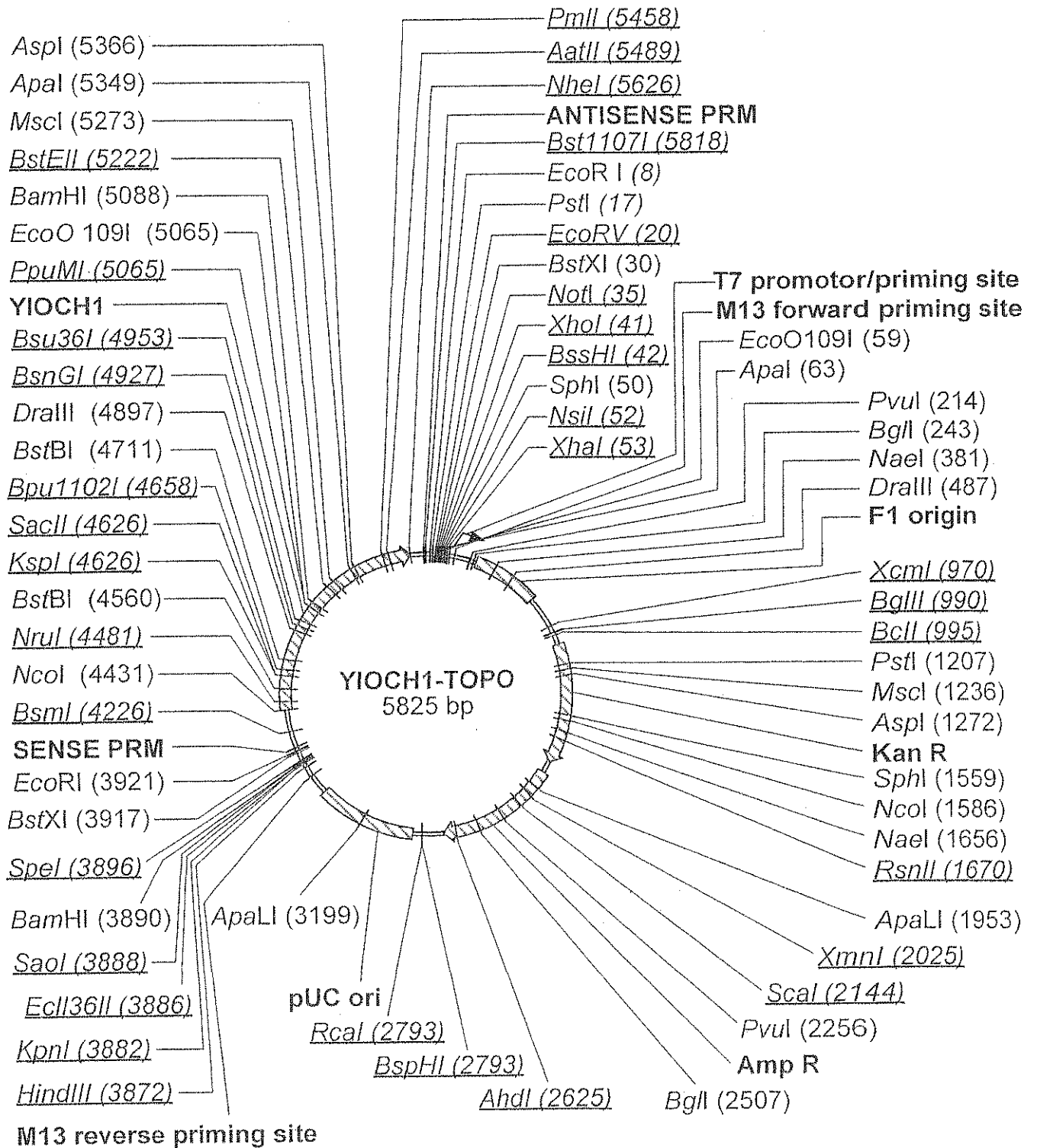


FIG. 5



PCR

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PCR

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FIG.5(Continuous)

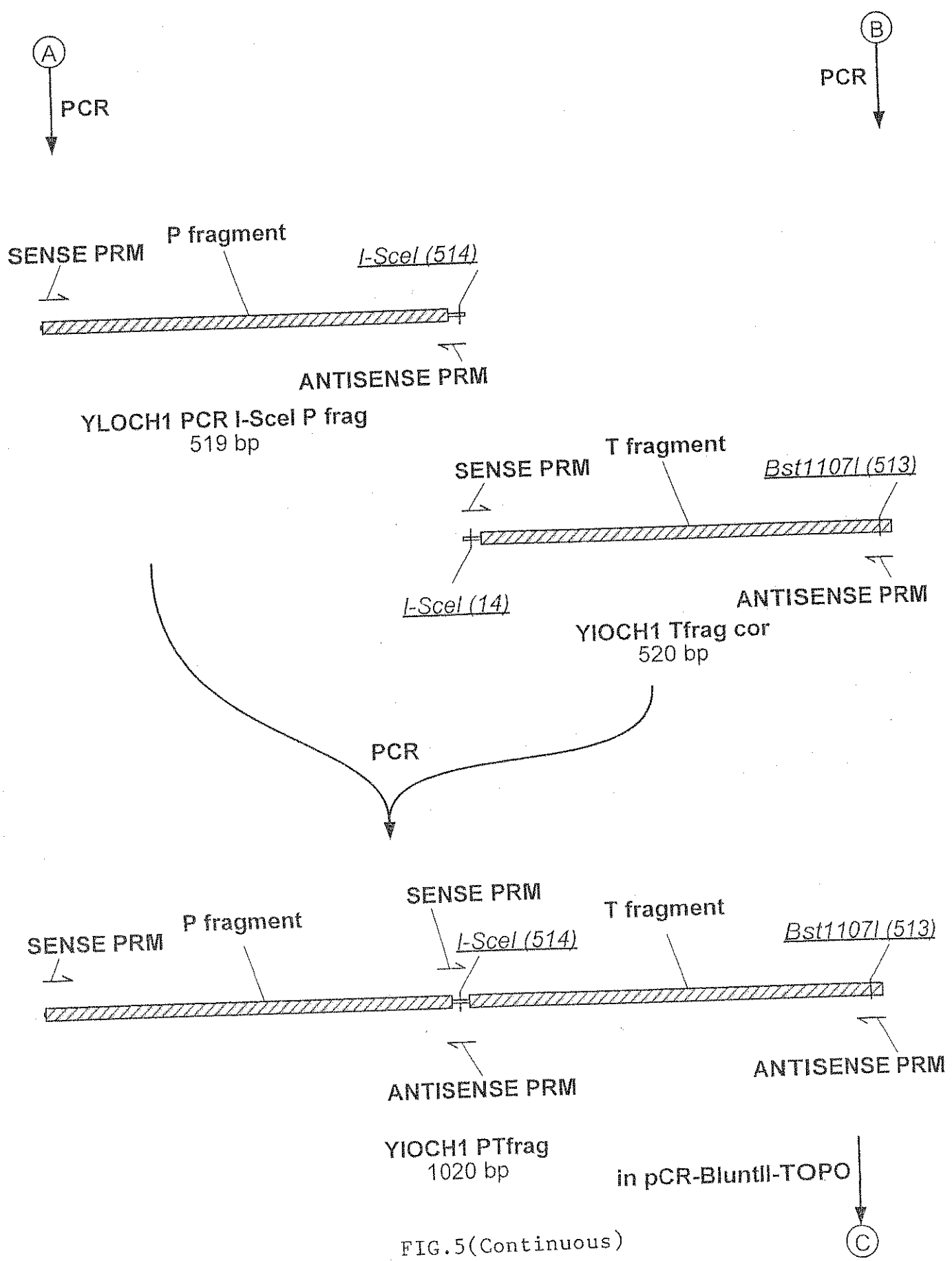


FIG.5(Continuous)

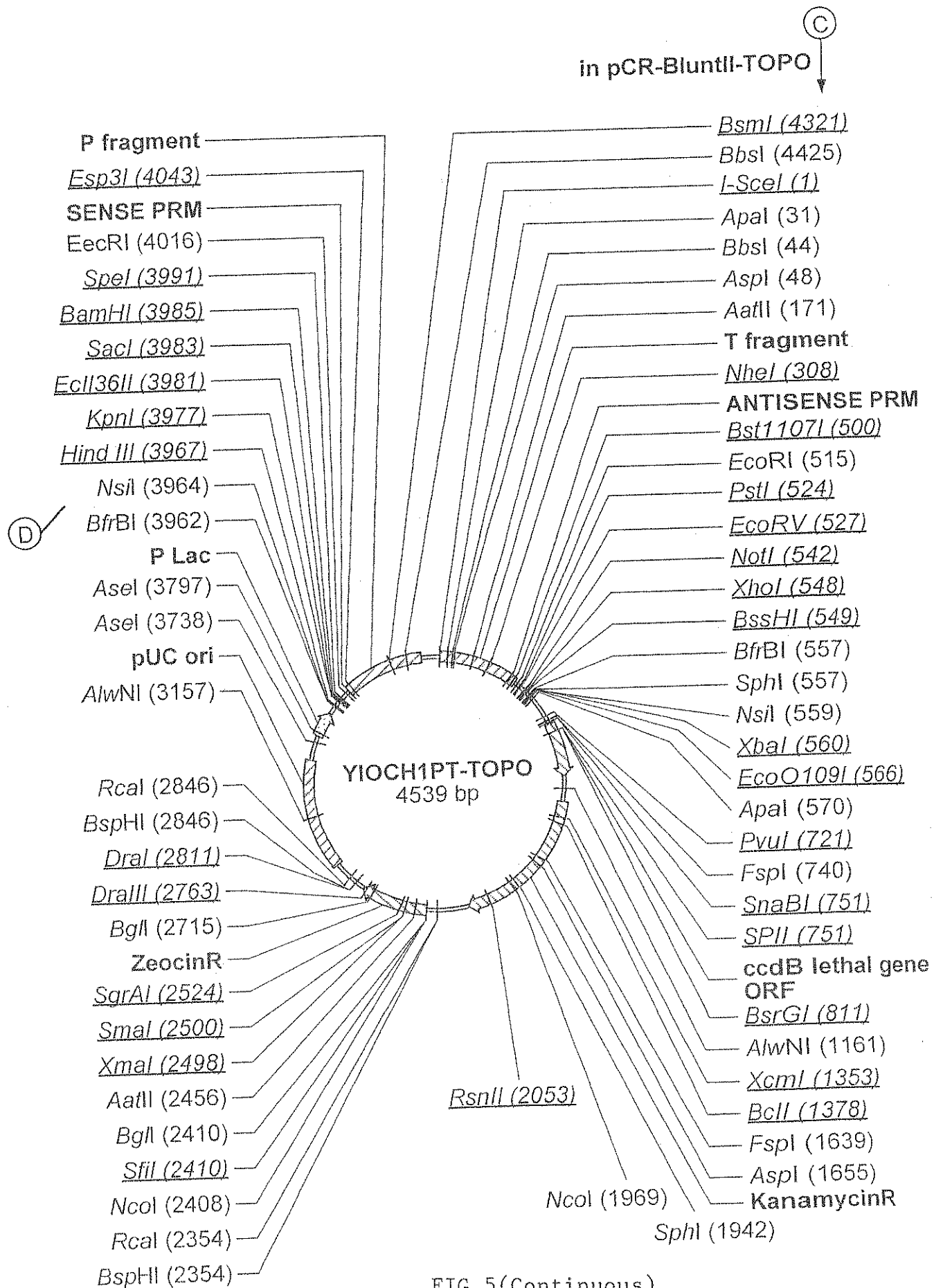


FIG.5(Continuous)

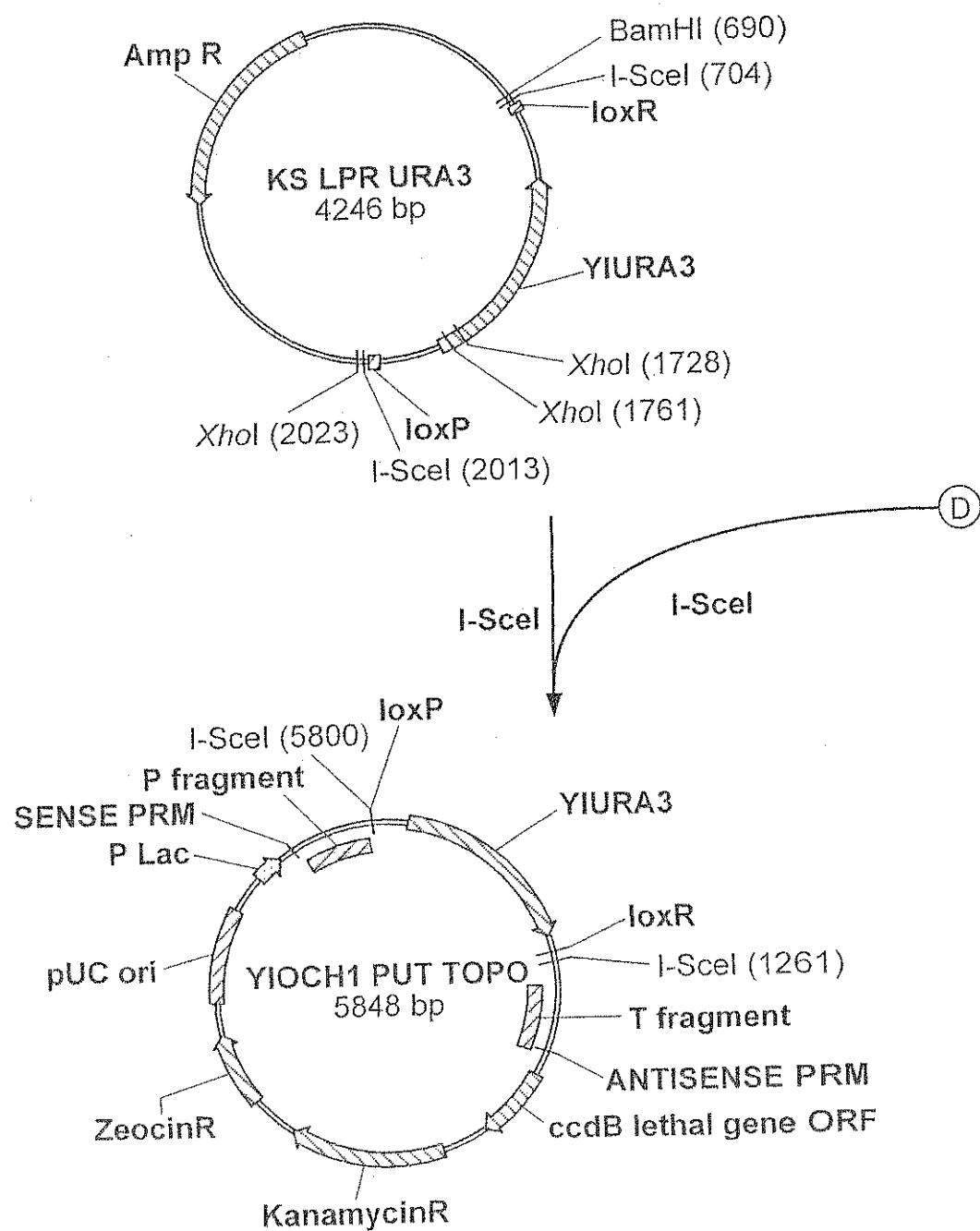


FIG.5(Continuous)

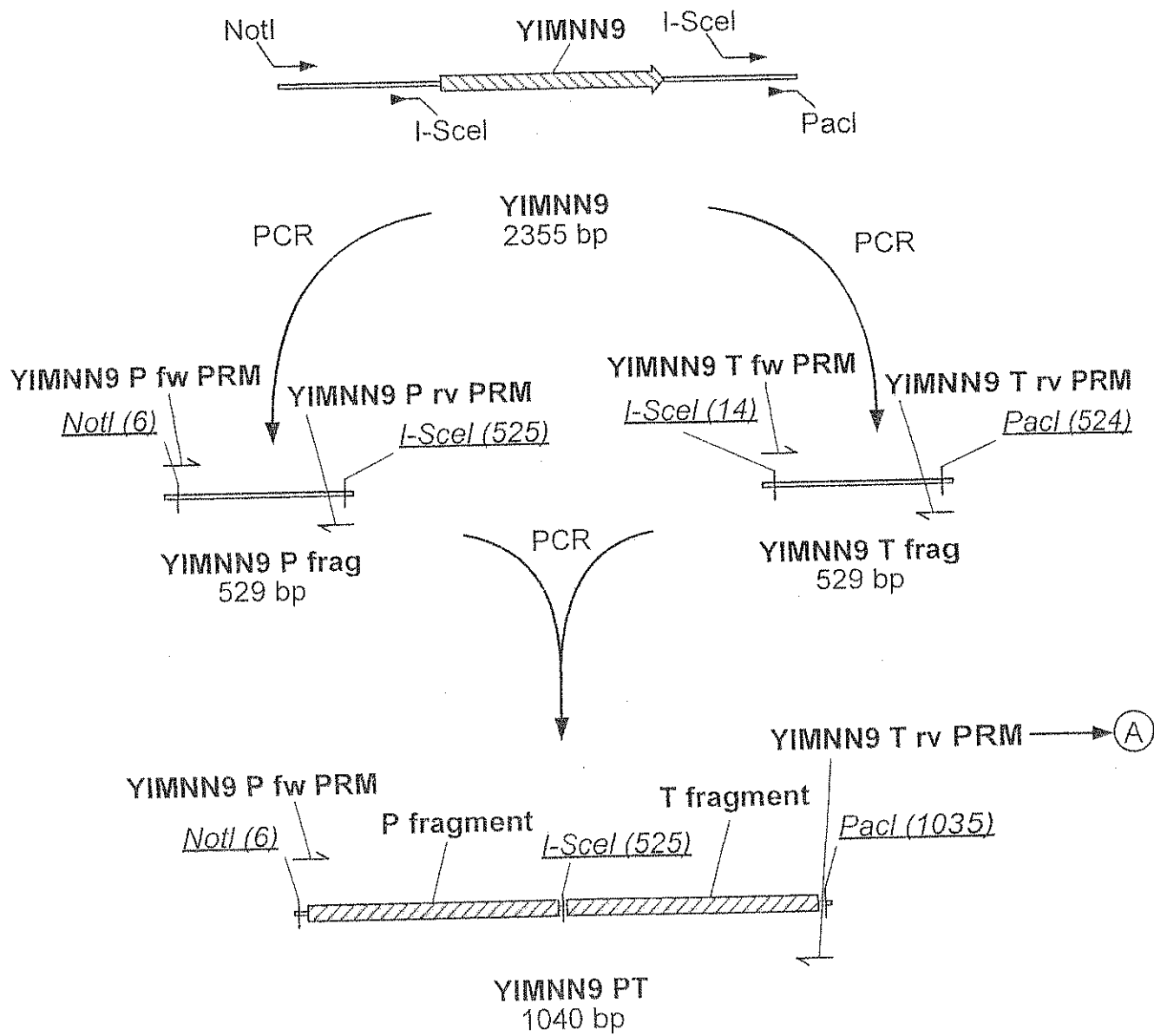


FIG.6

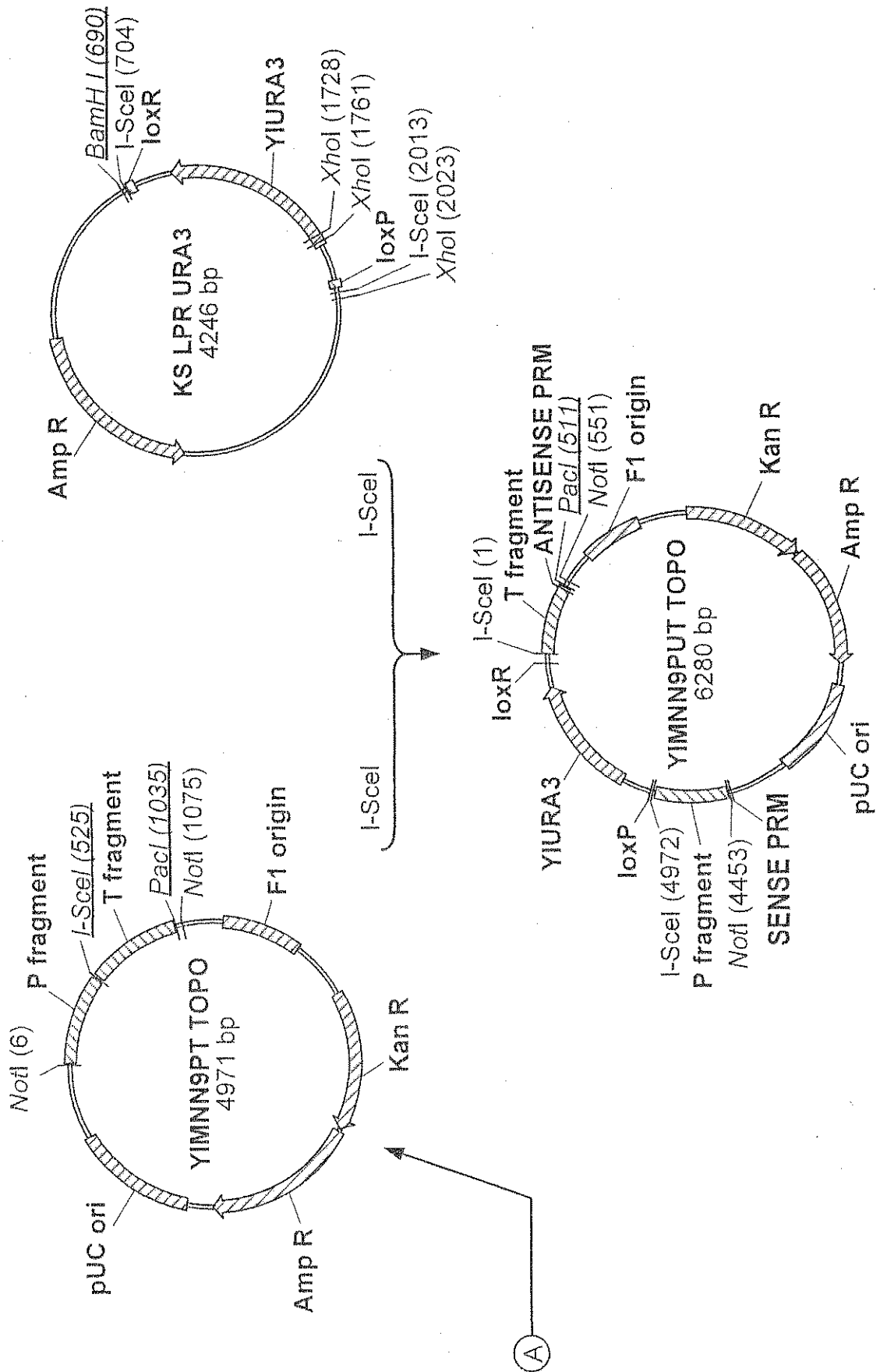


FIG. 6(Continuous)

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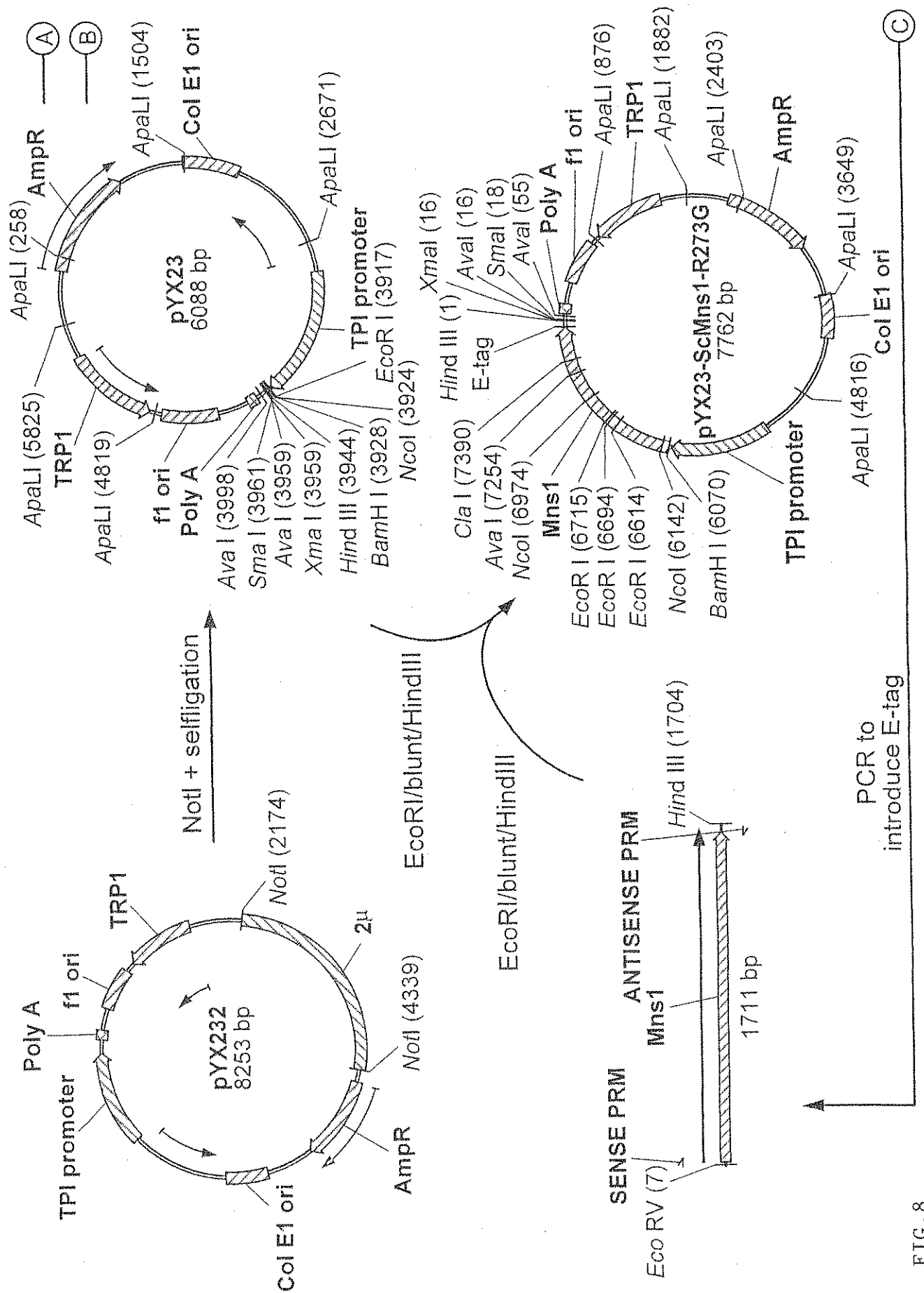
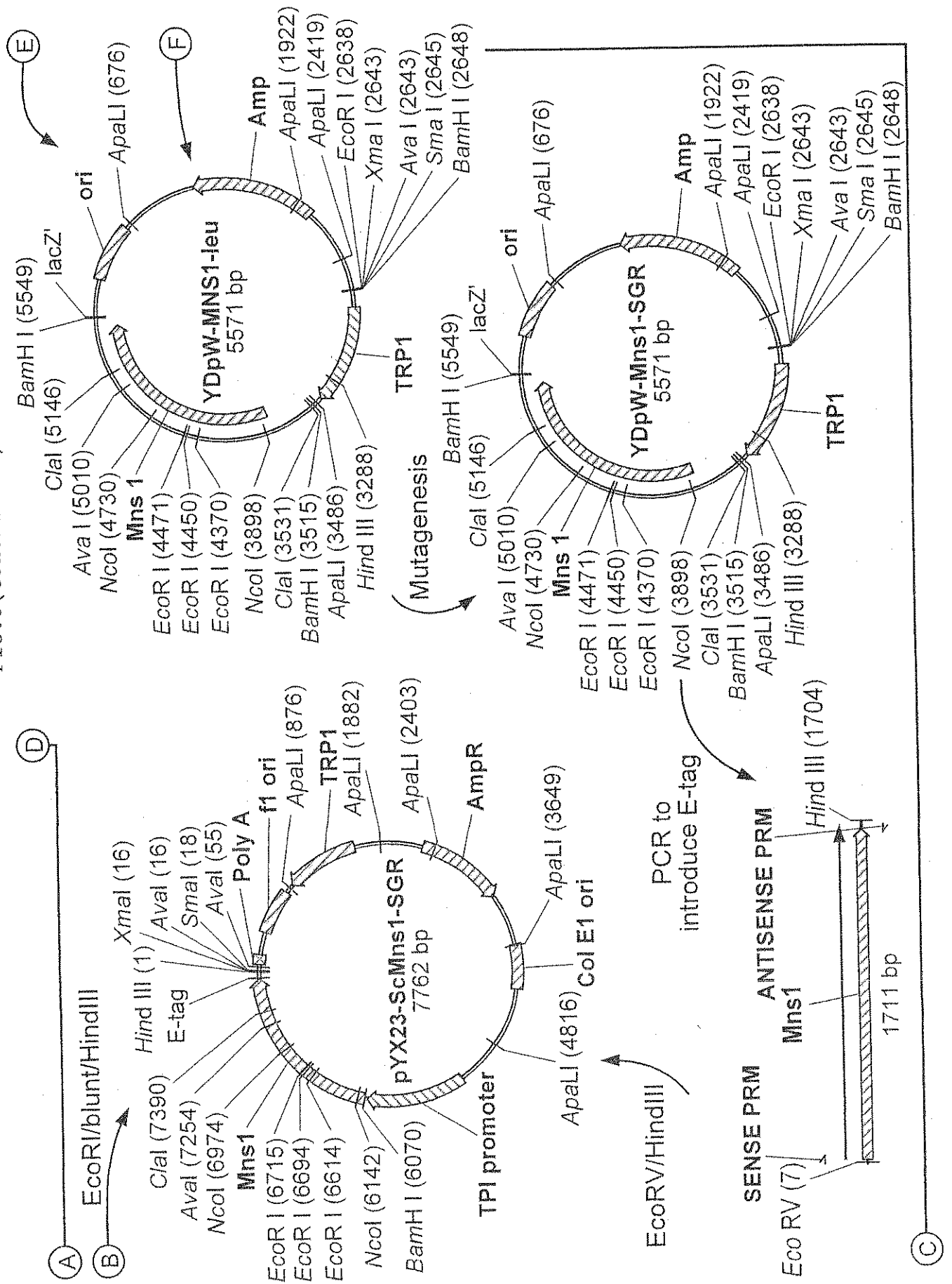


FIG. 8.

FIG. 8 (Continuous)



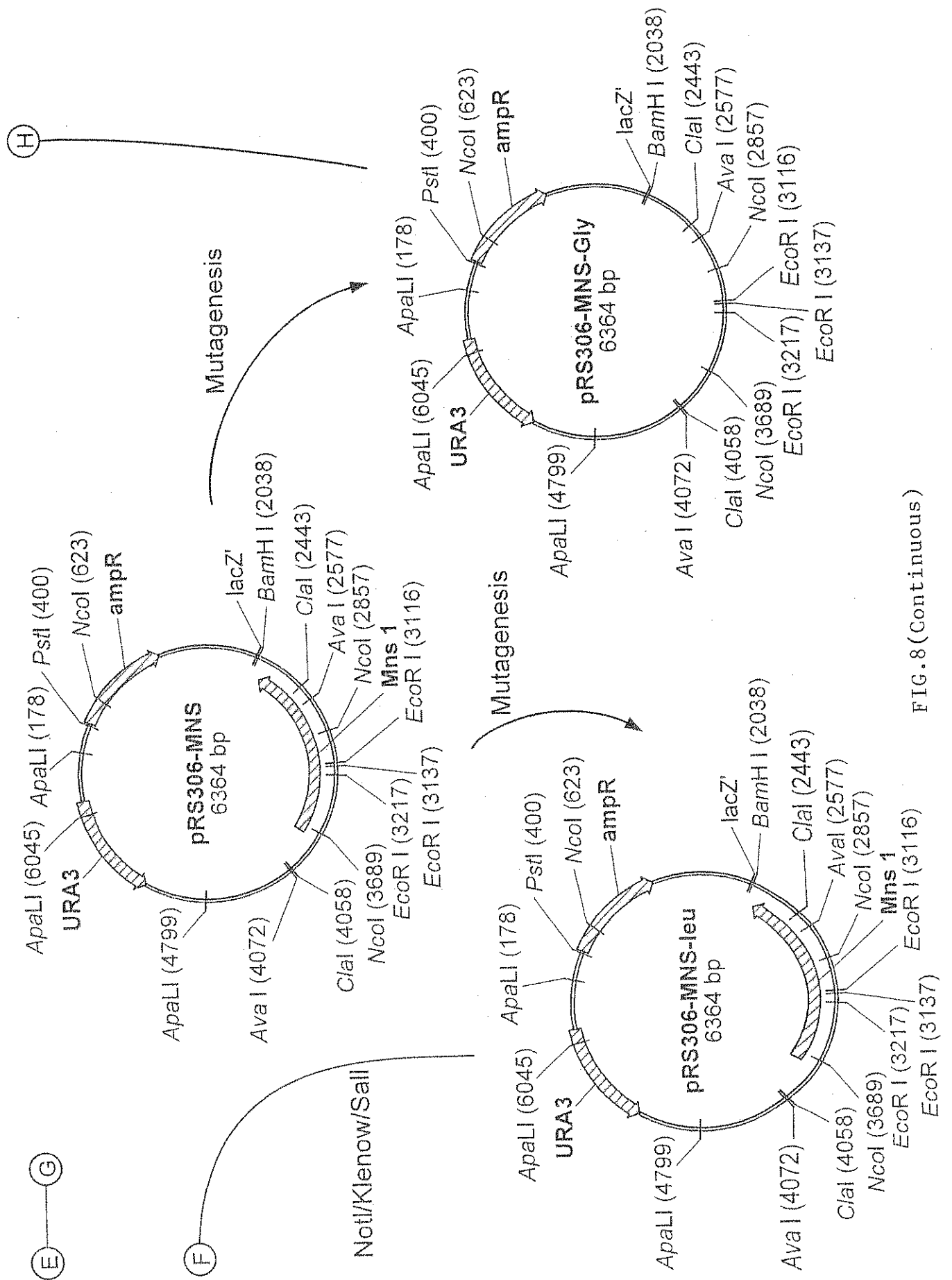


FIG.8(Continuous)

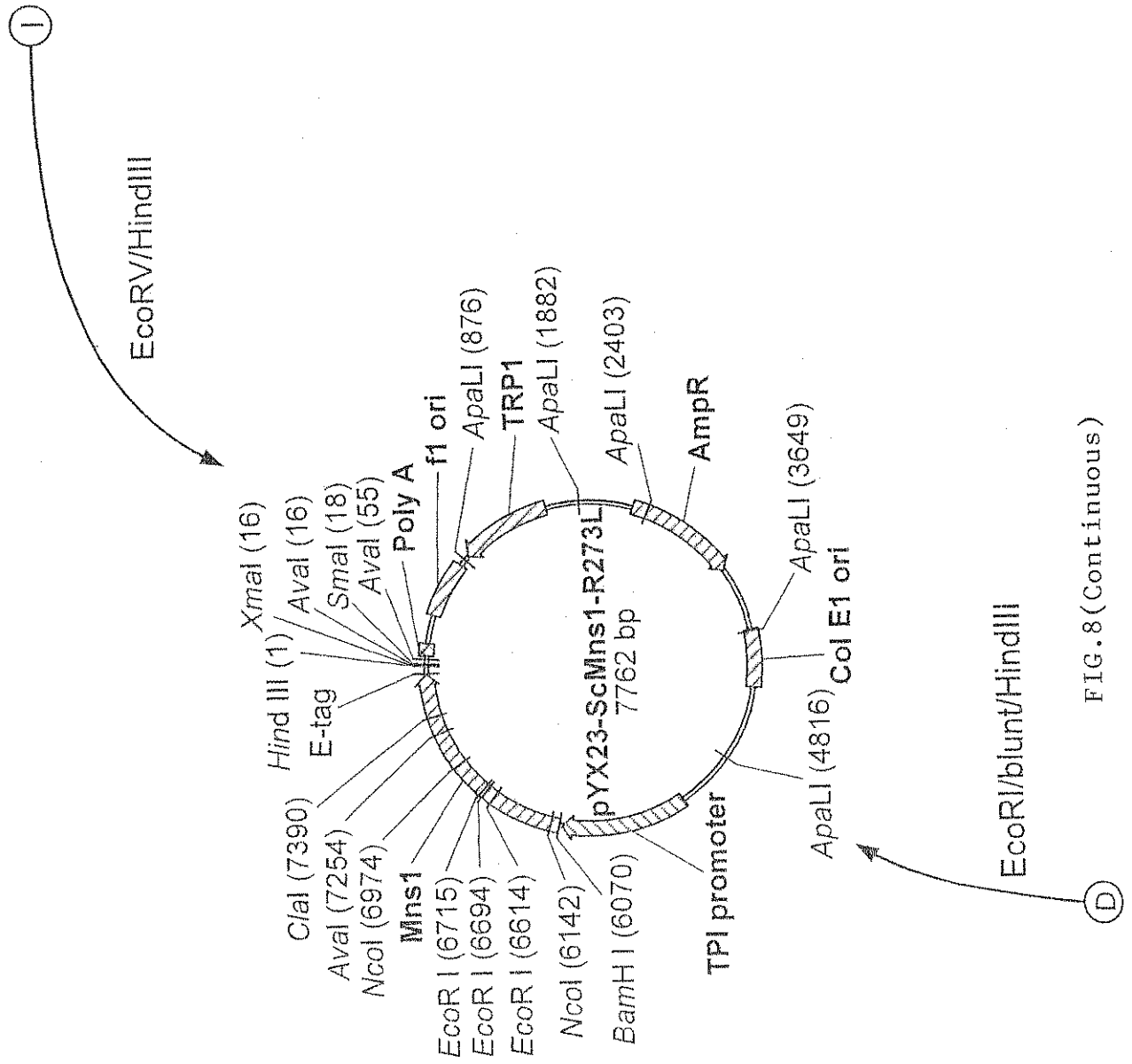


FIG.8(Continuous)

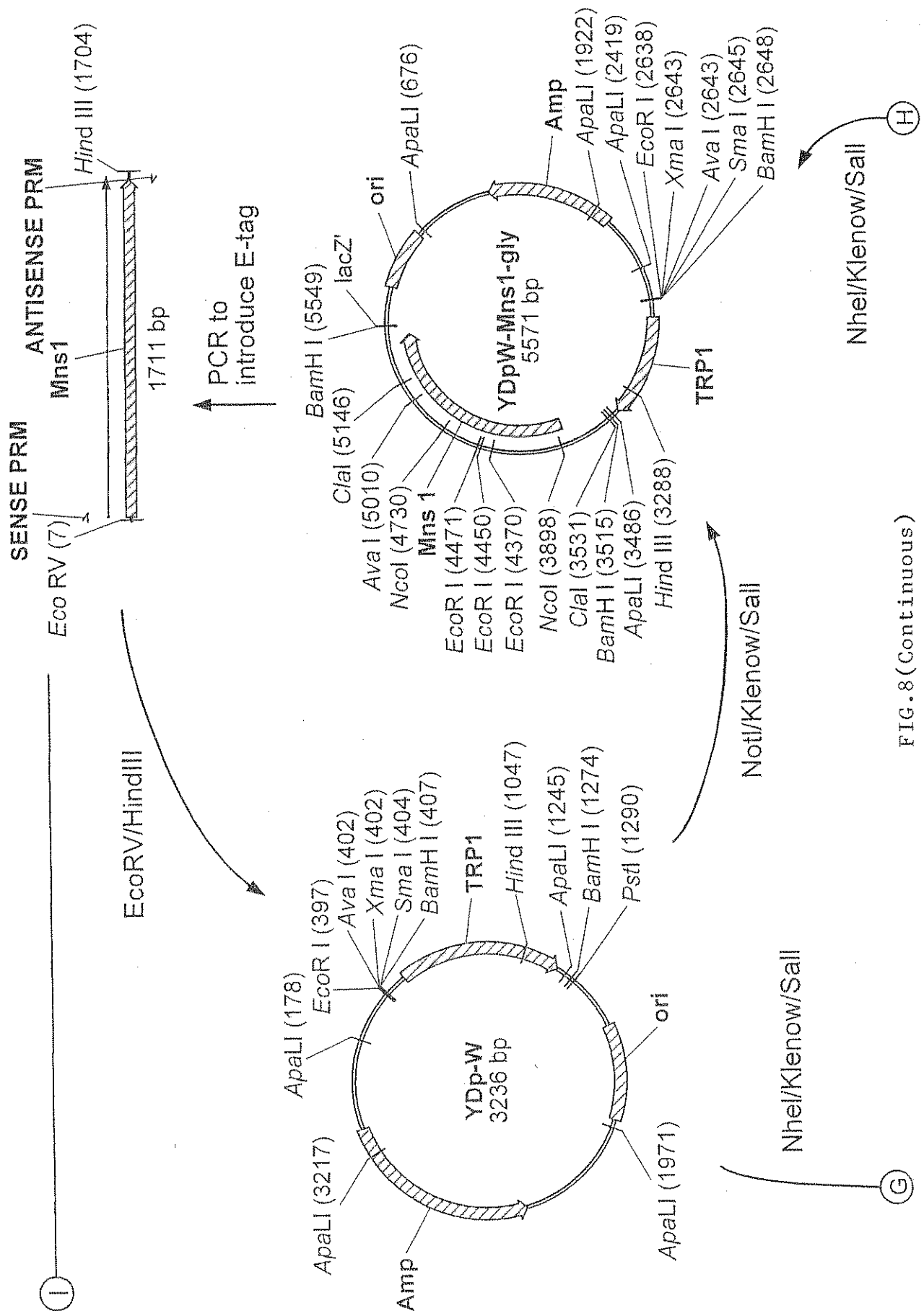


FIG. 8 (Continuous)

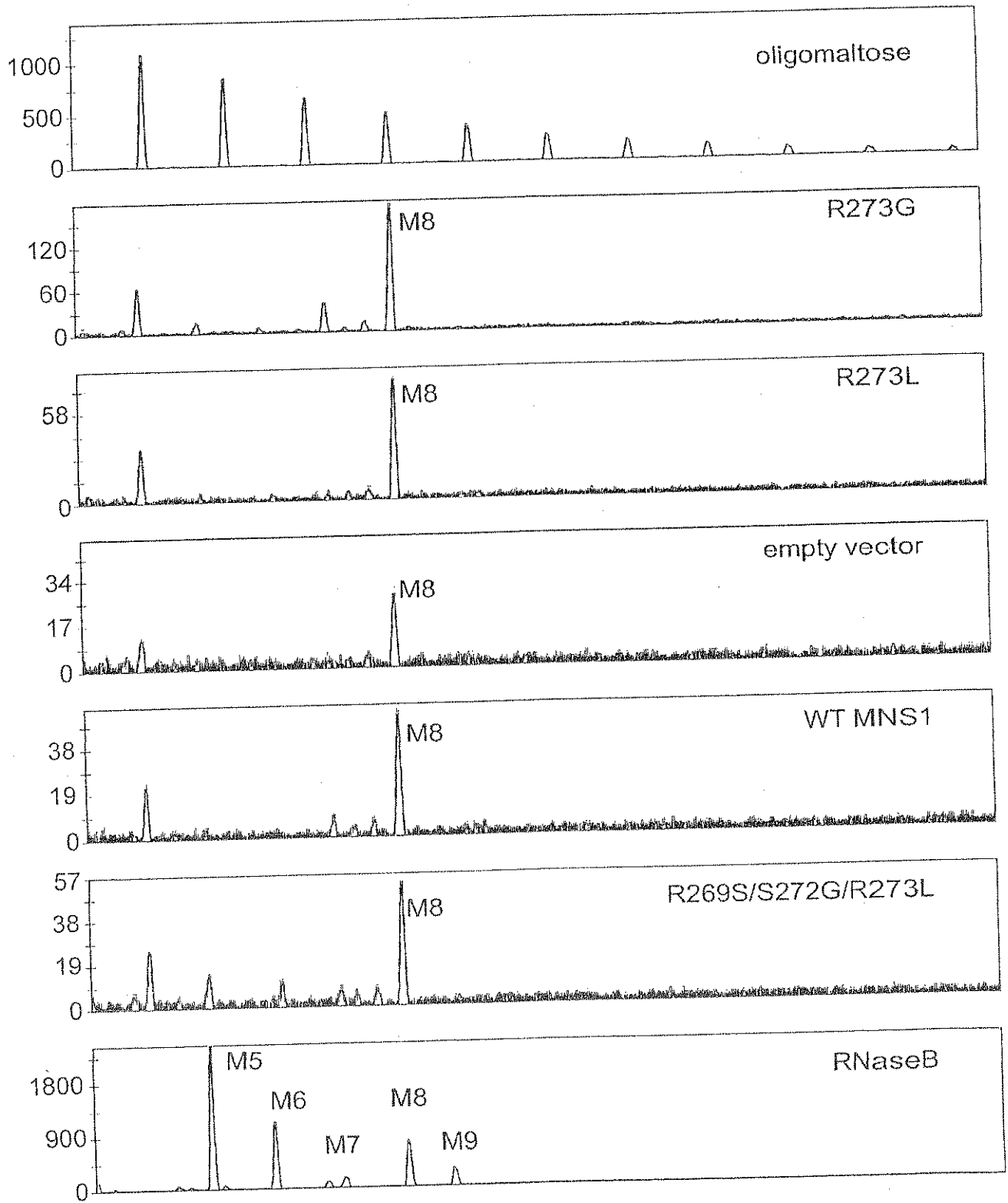


FIG. 9

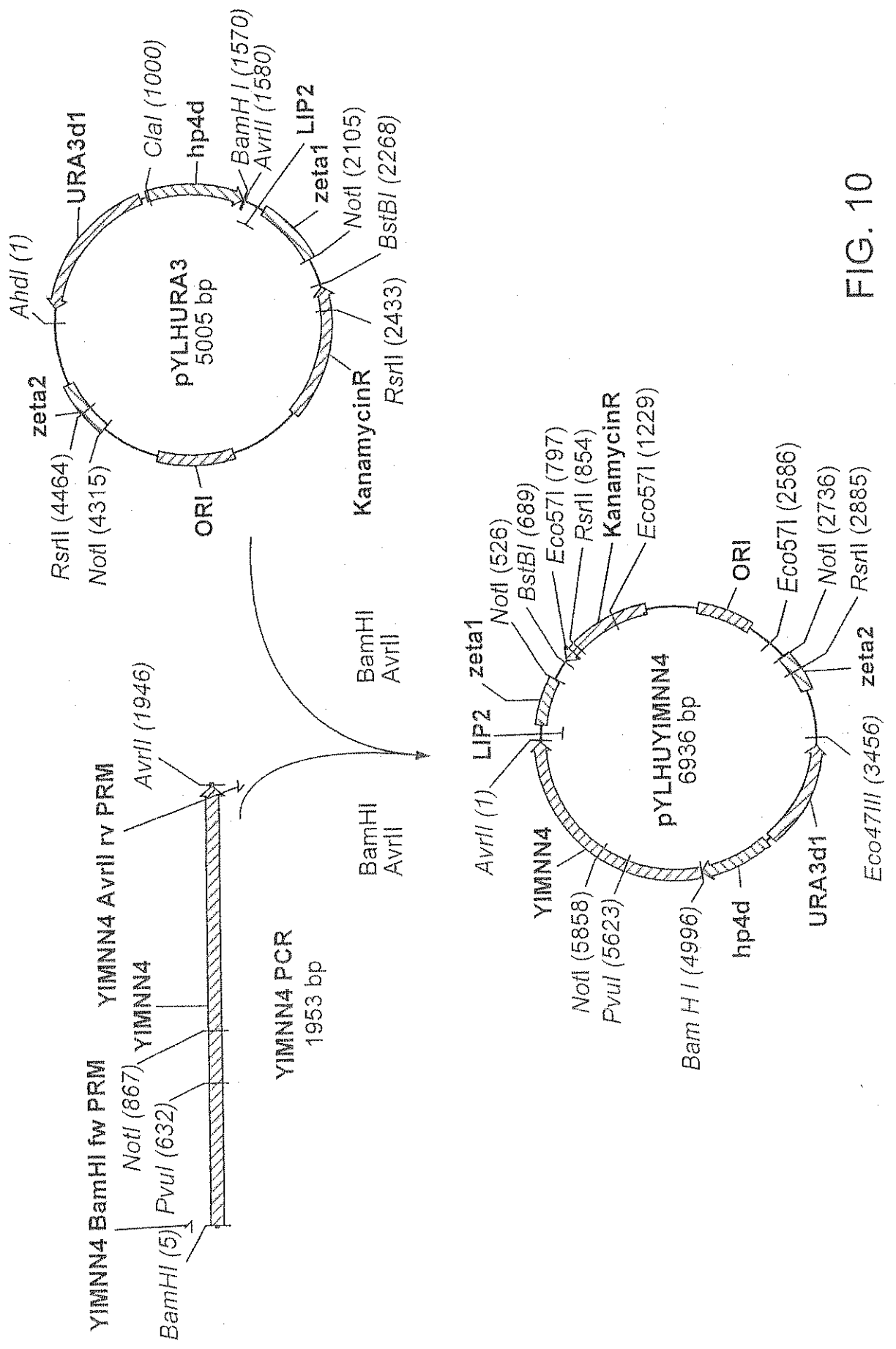


FIG. 10

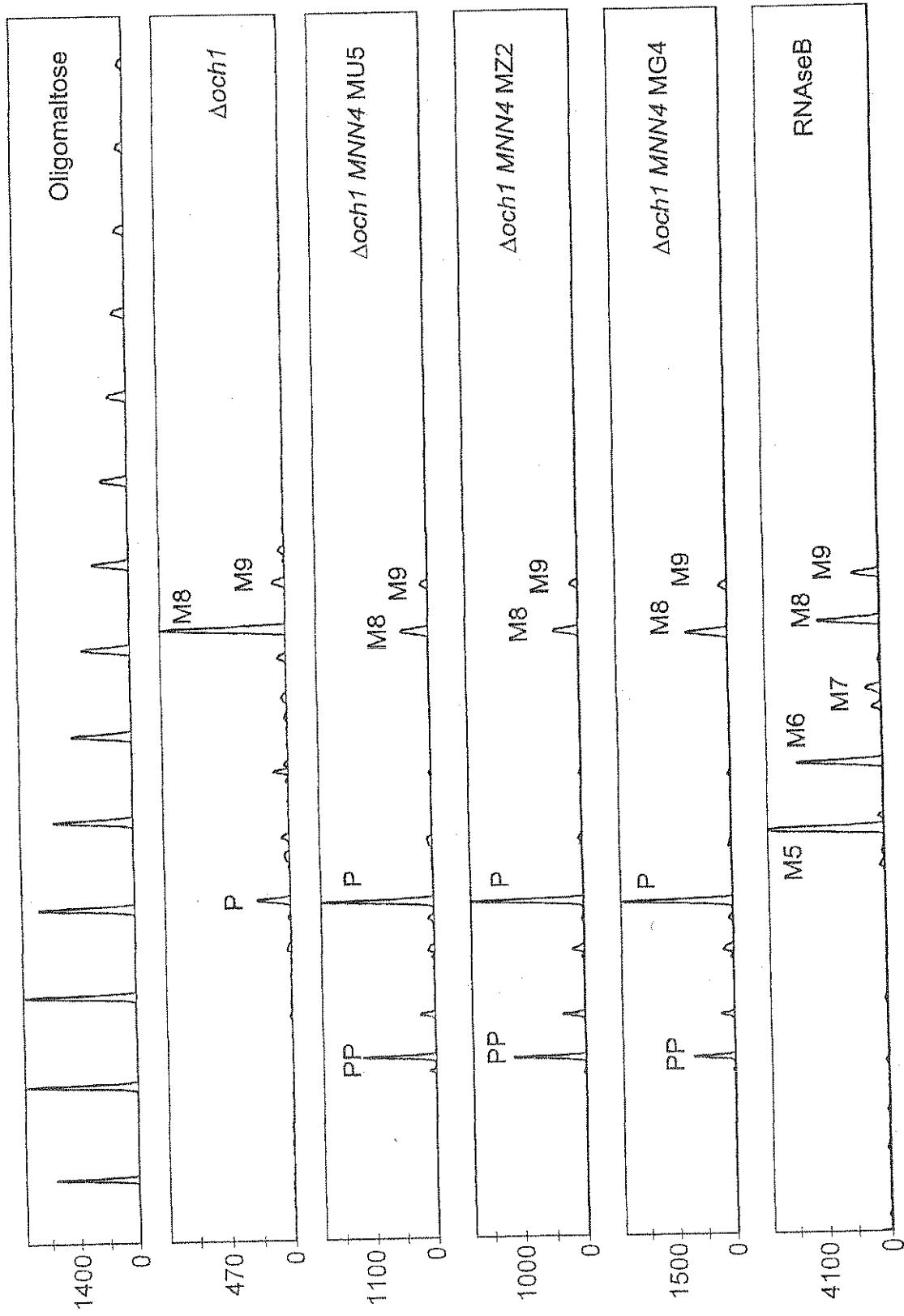


FIG. 11

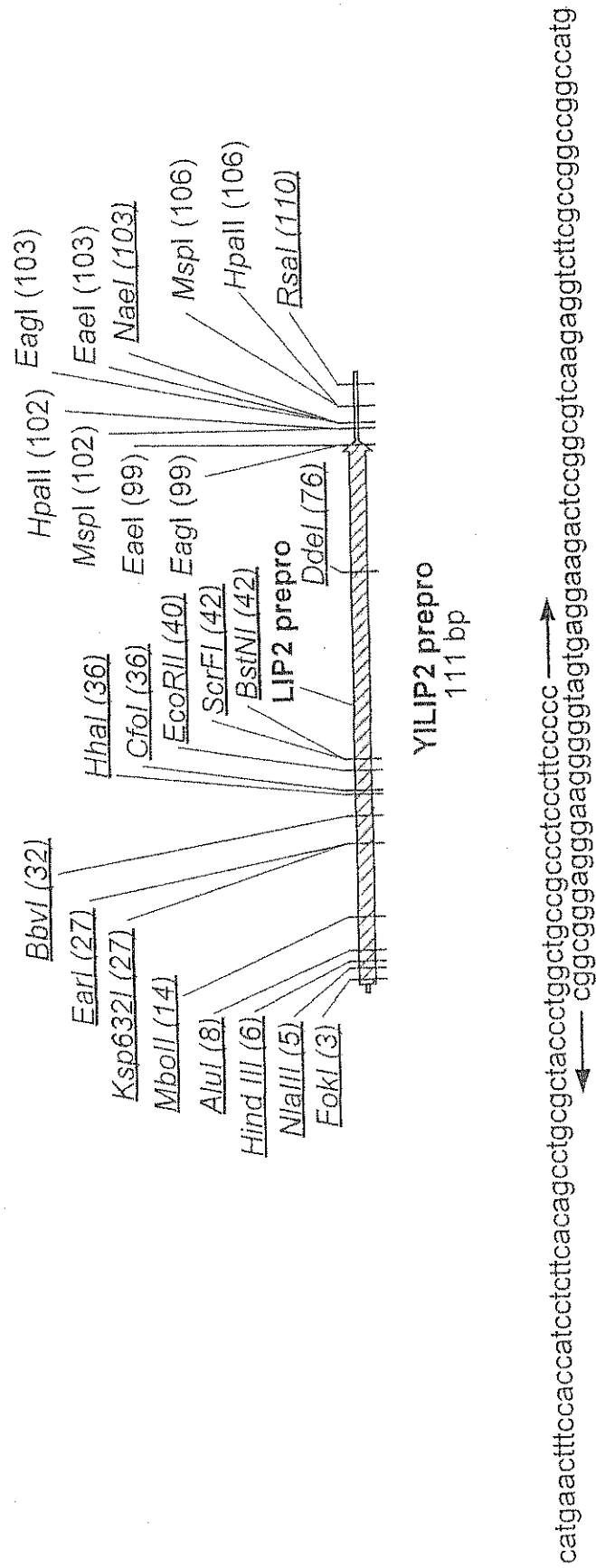


FIG. 12

A

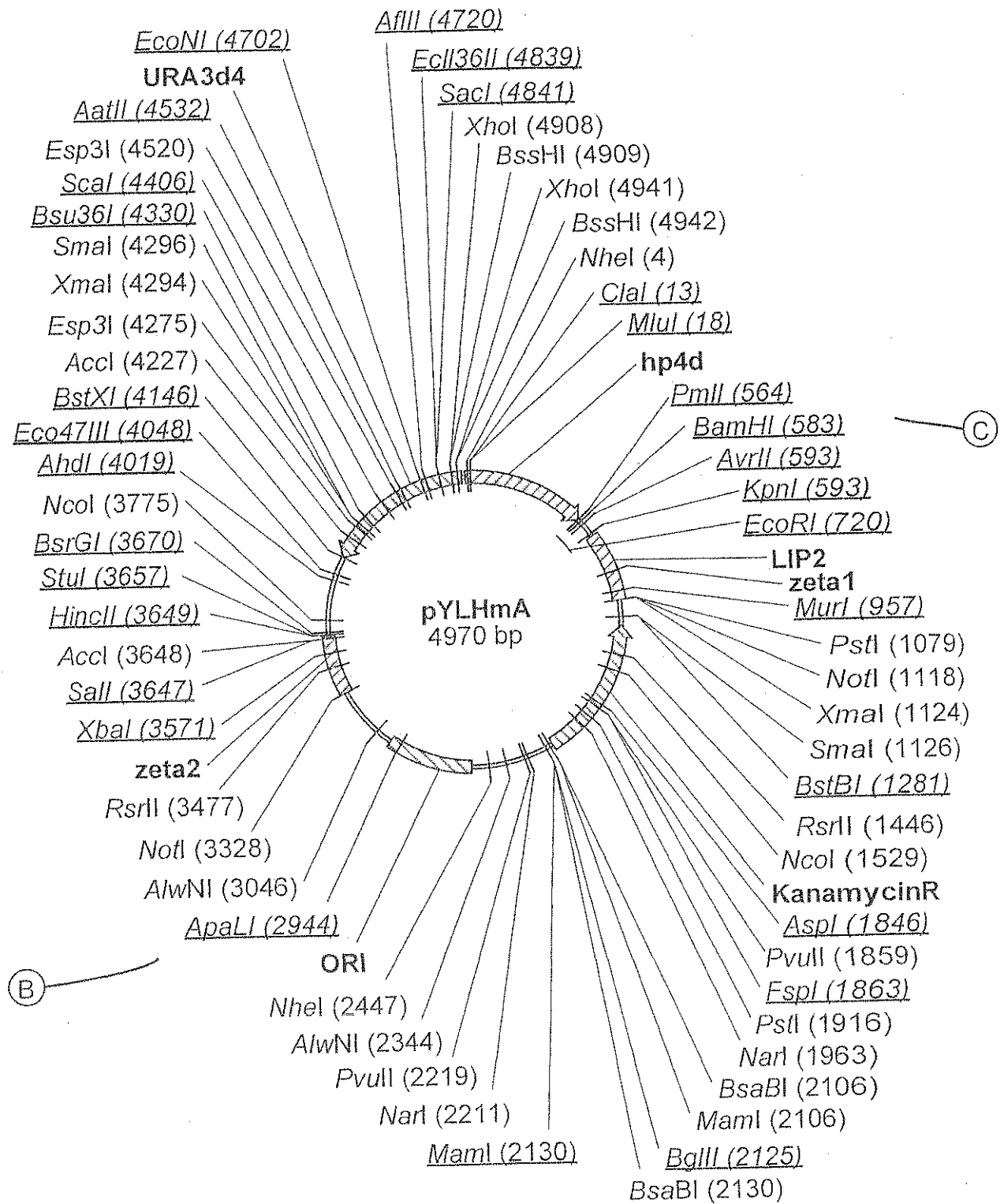


FIG.12(Continuous)

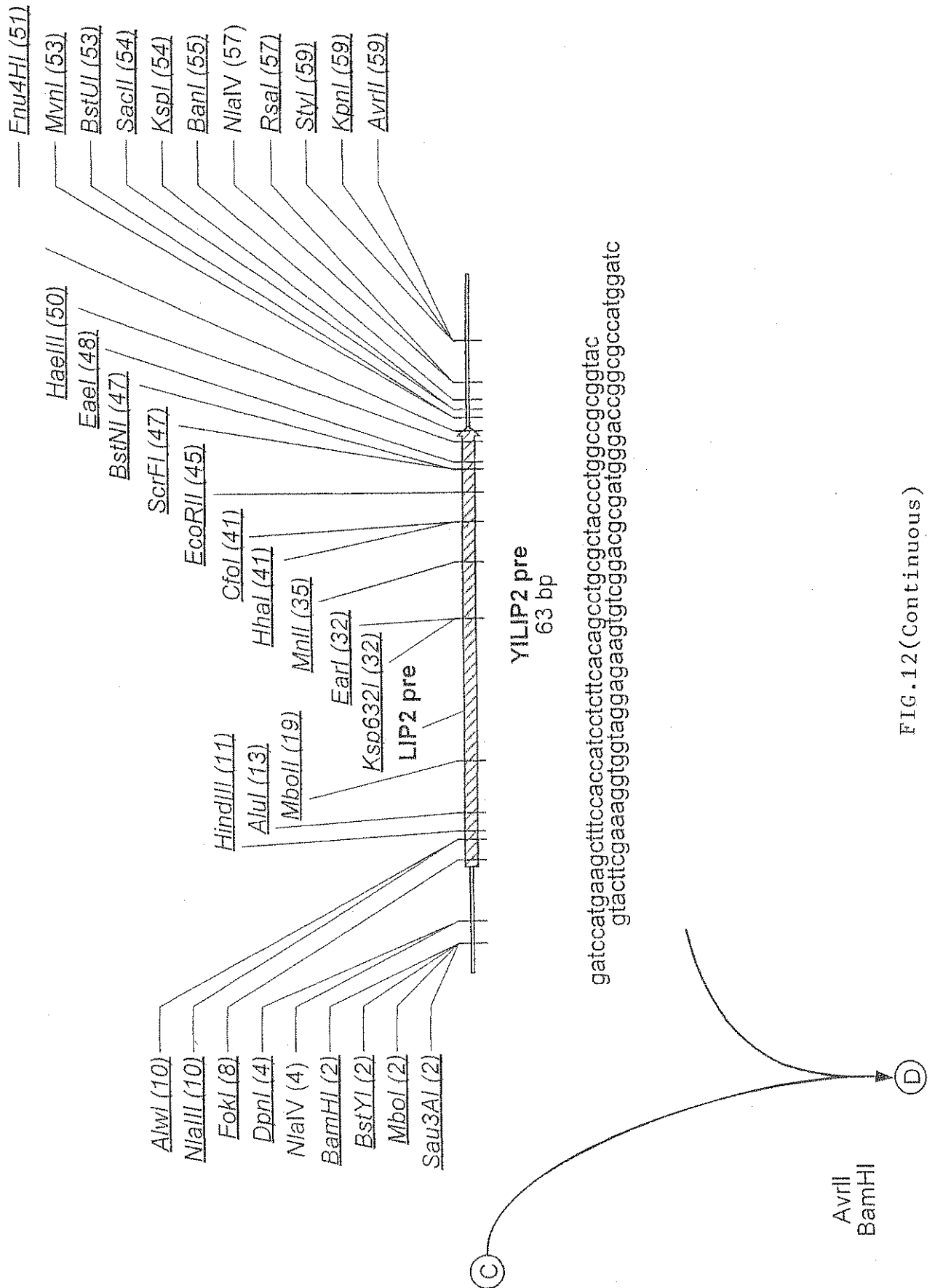


FIG.12(Continuous)

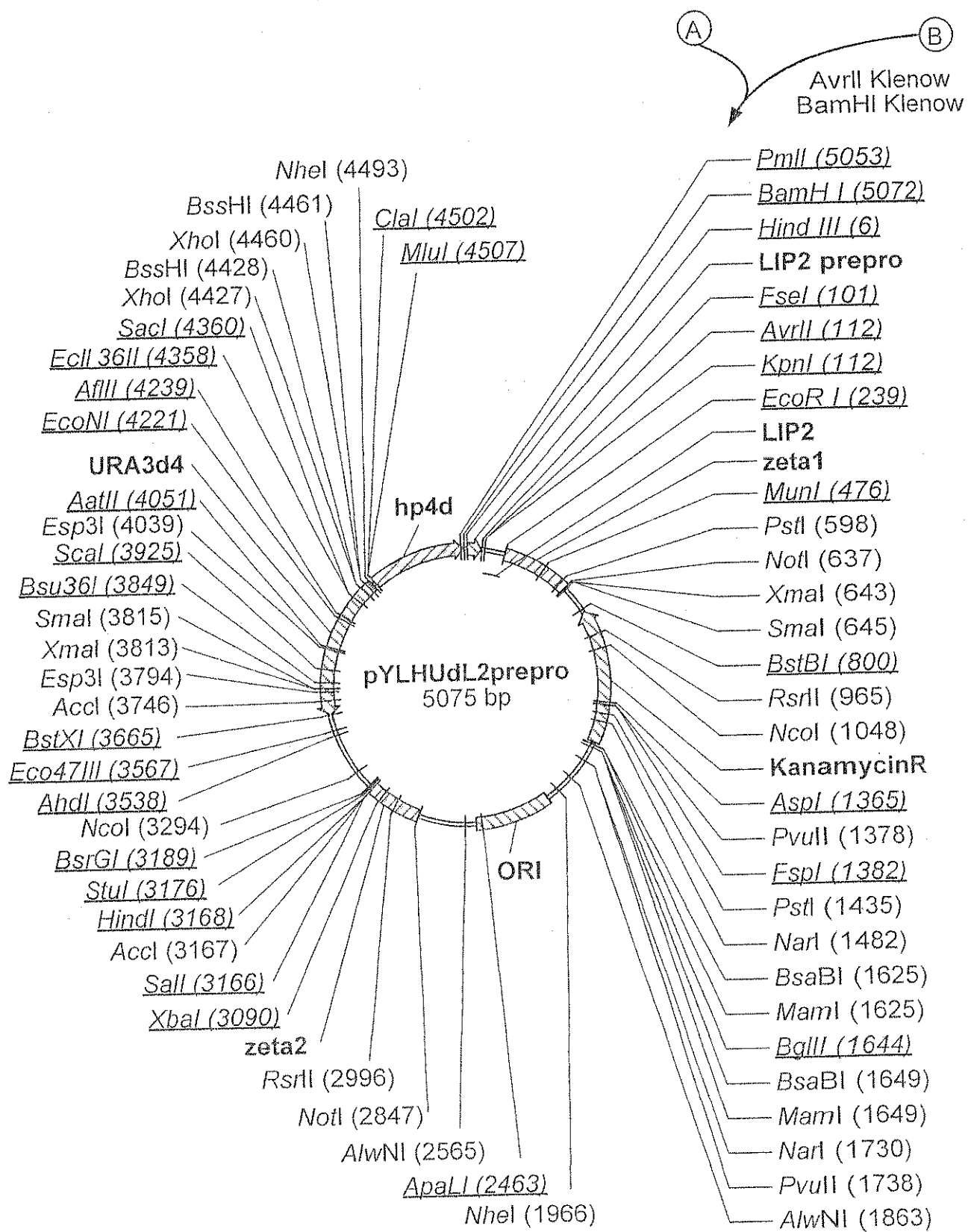


FIG.12(Continuous)

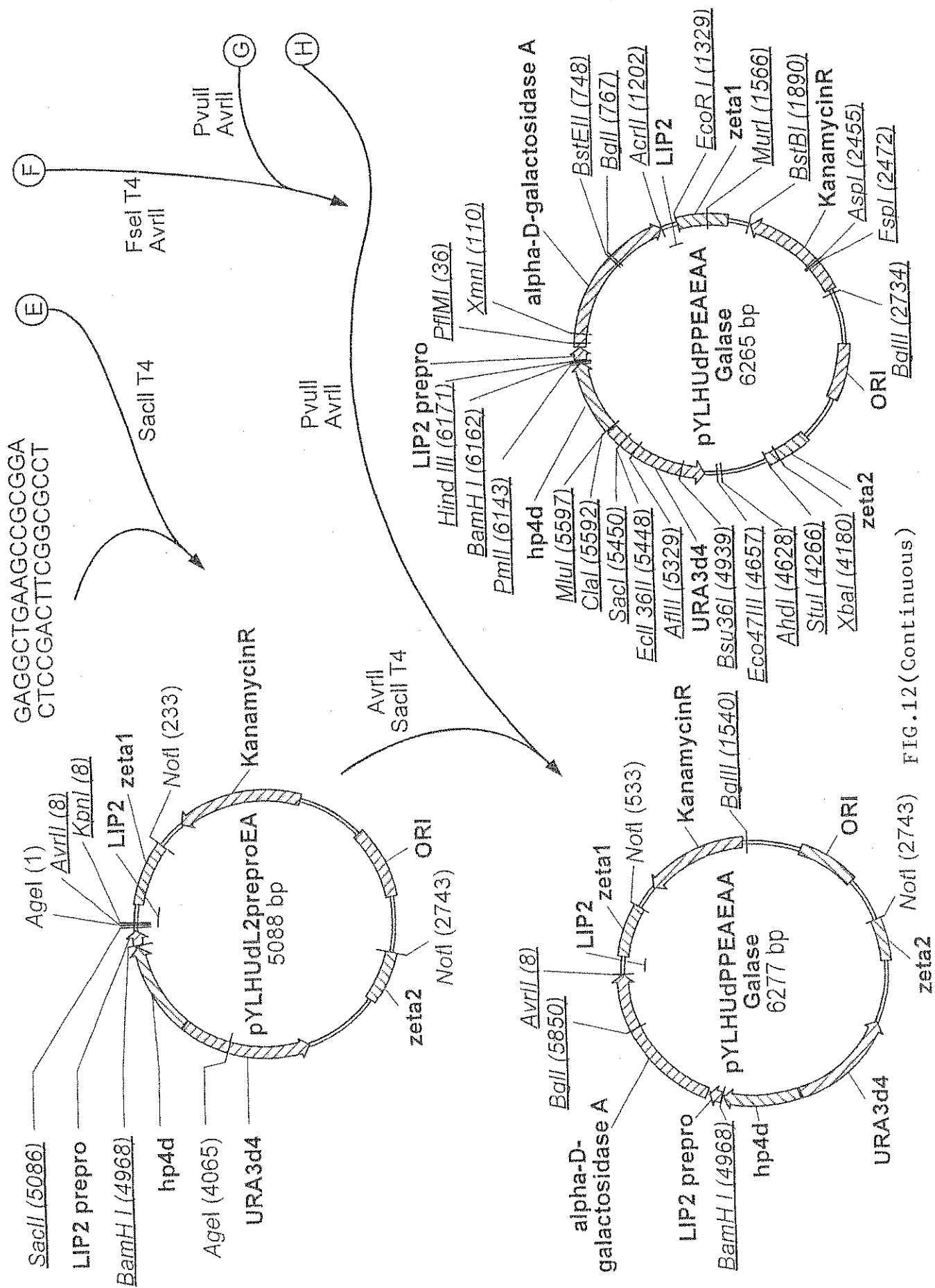


FIG. 12(Continuous)

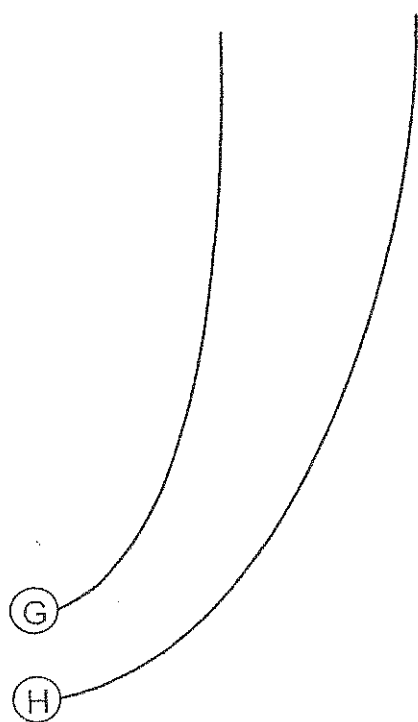
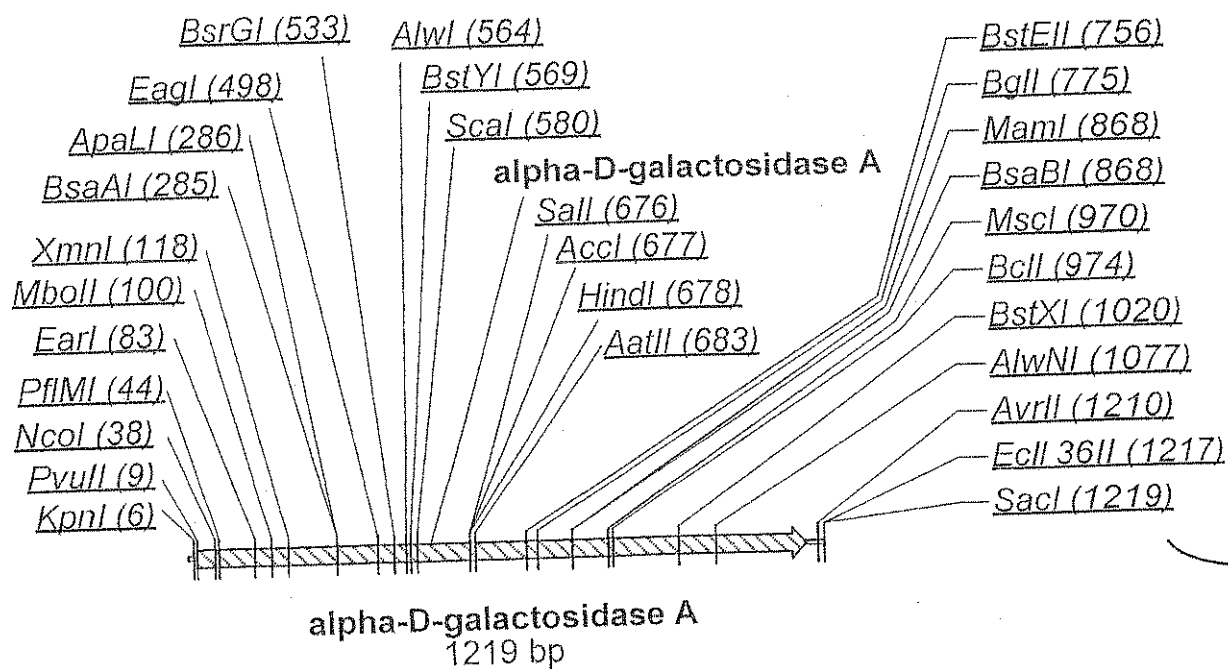


FIG.12(Continuous)

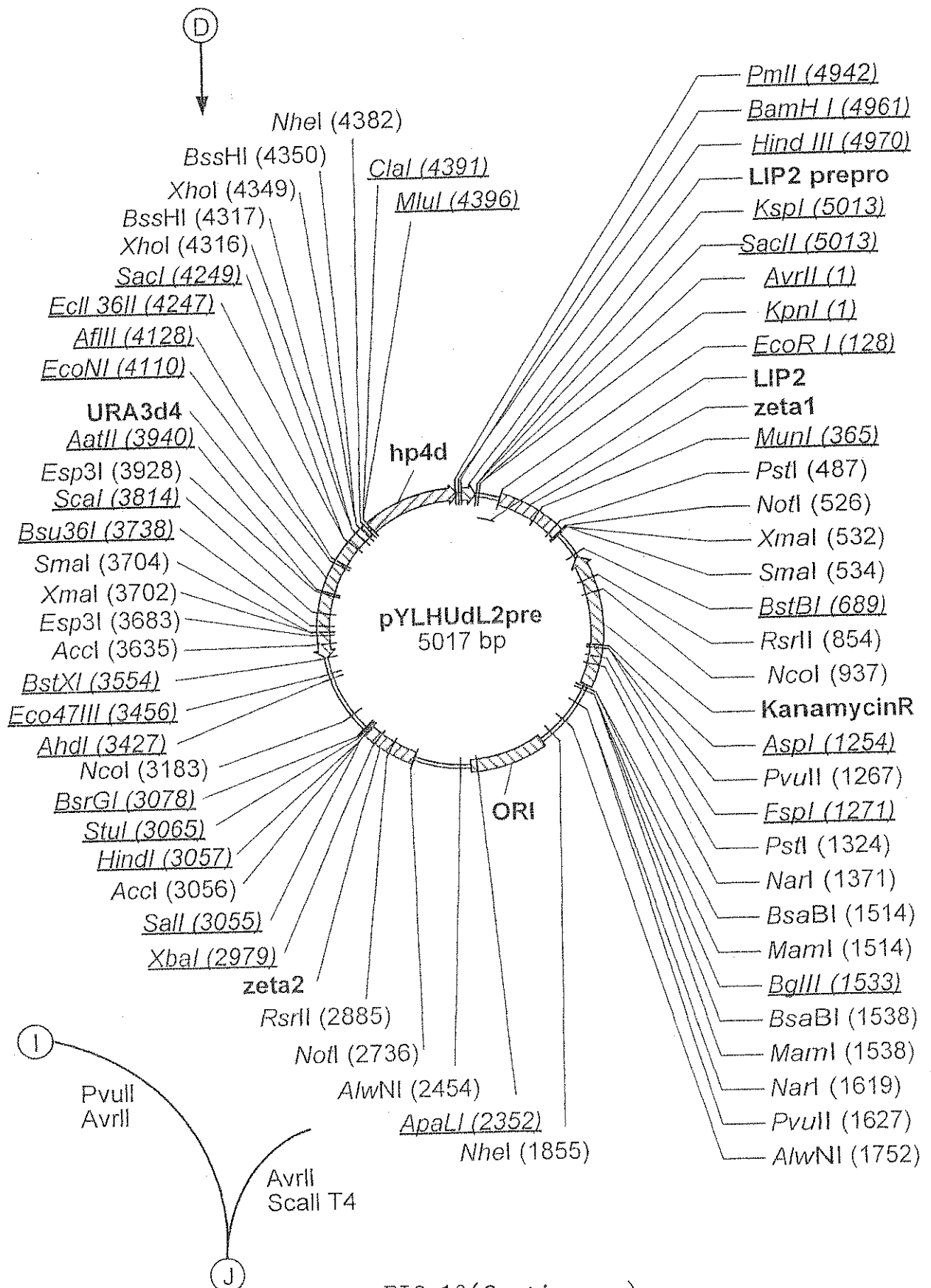


FIG.12(Continuous)

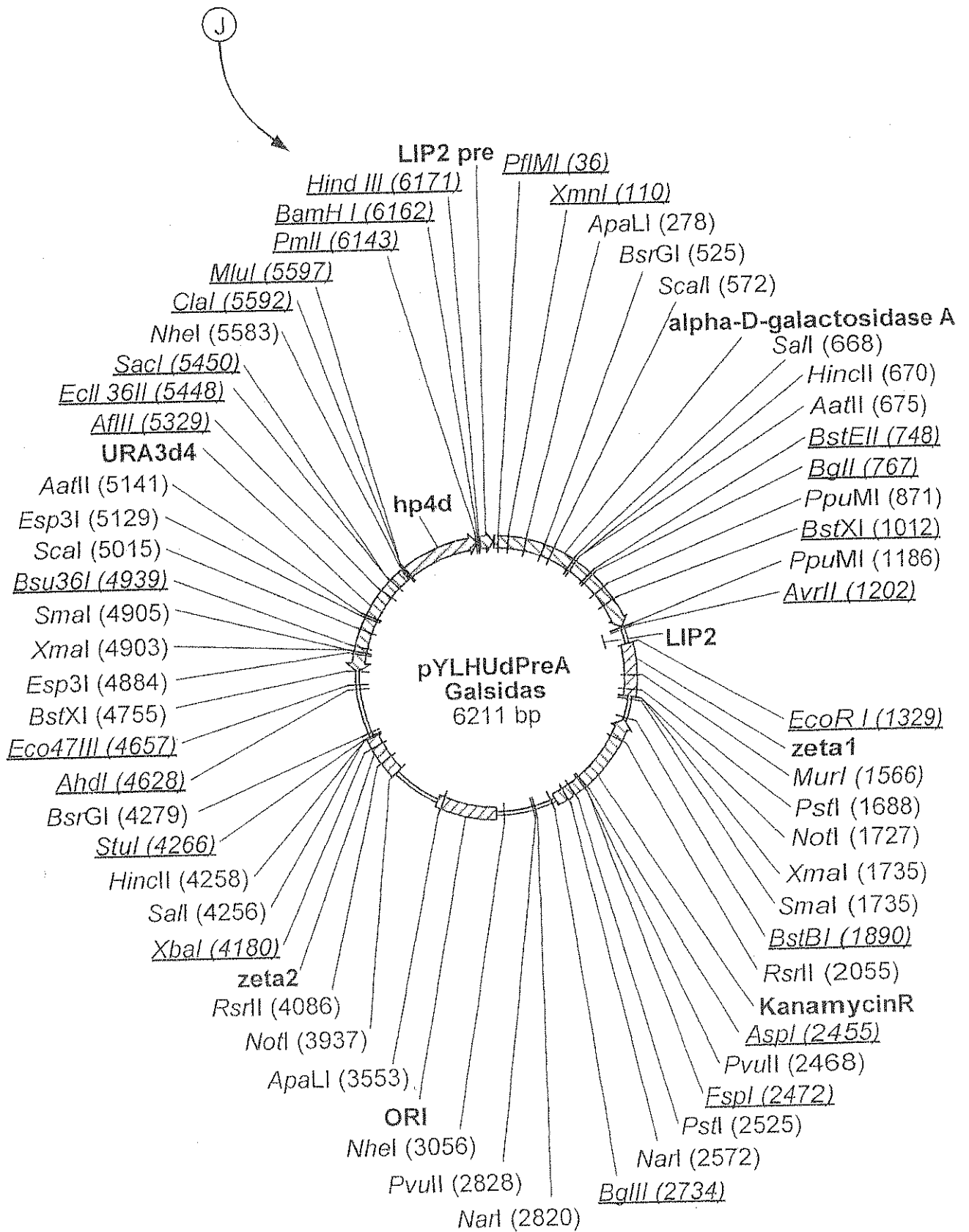


FIG.12(Continuous)

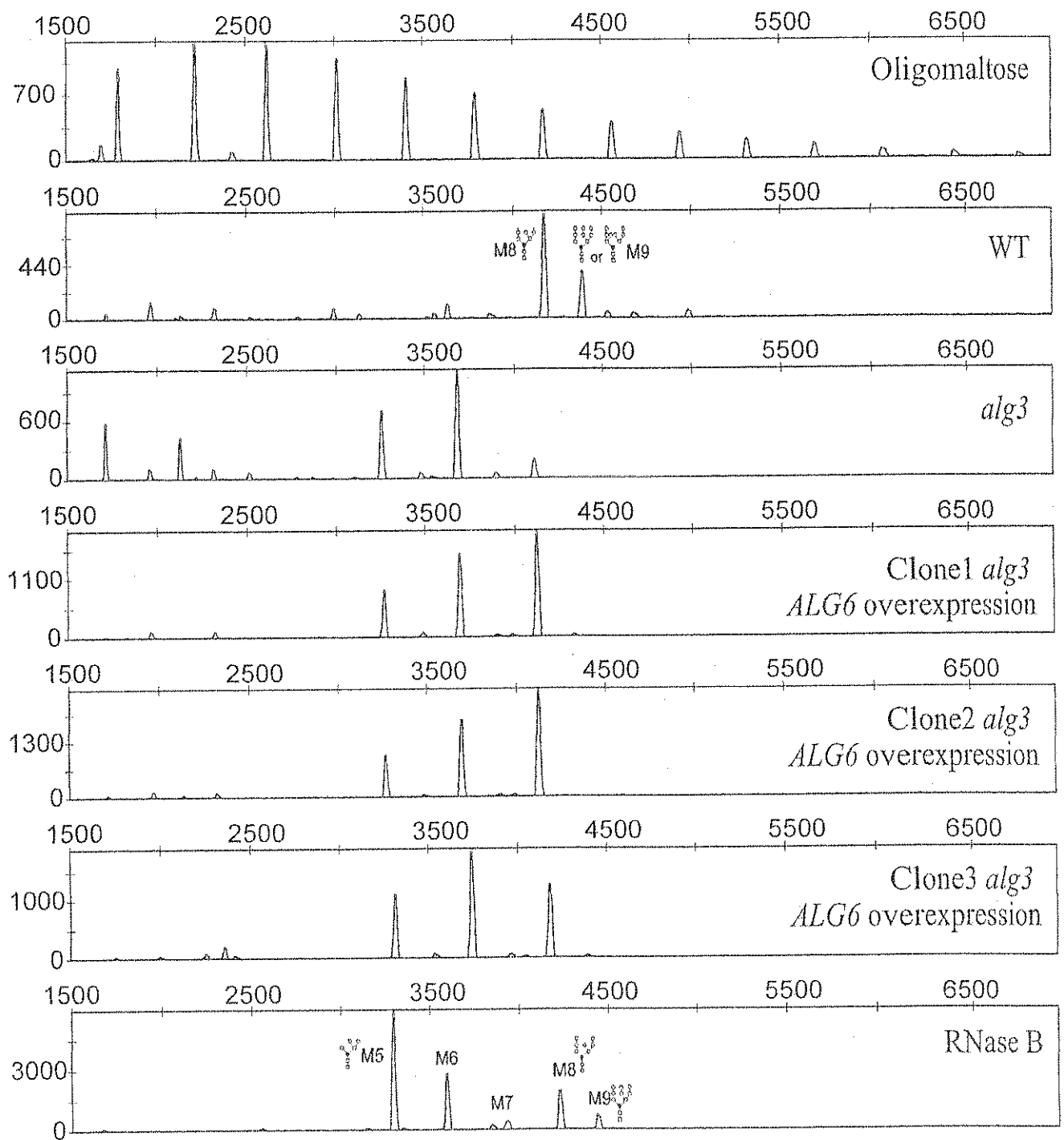


FIG. 13

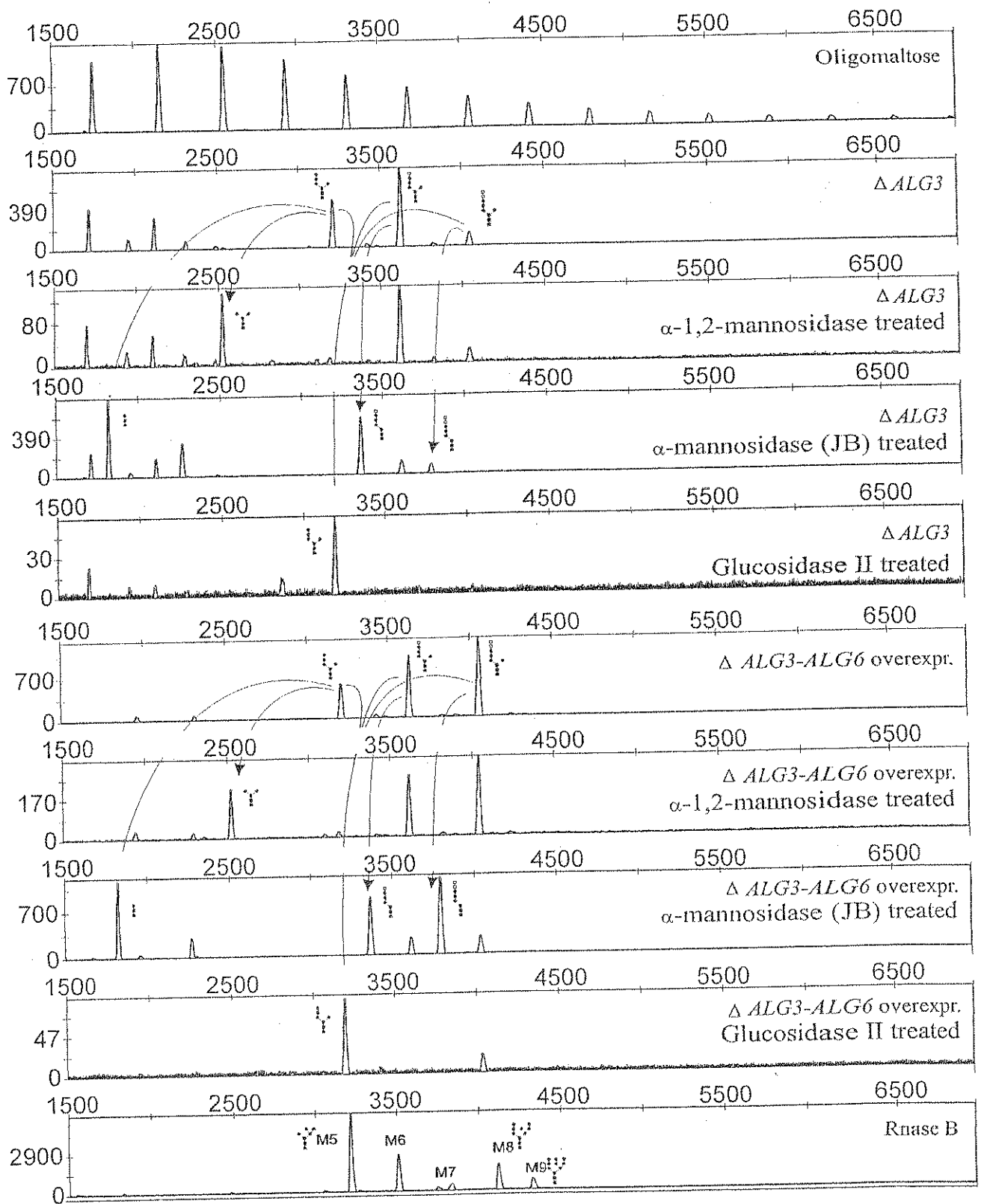


FIG. 14

Sequence	GGTCTCGCCAGCGGCCACCCCTCTTCAACCACGATAATGAGACCGTCGT
HAC1YL	GGTCTCGCCAGCGGCCACCCCTCTTCAACCACGATAATGAGACCGTCGT
Sequence	CCCCGACTCTCCTATTGTGAAGACCGAGGAAGTCGACTCTACAAACTTTC
HAC1	CCCCGACTCTCCTATTGTGAAGACCGAGGAAGTCGACTCTACAAACTTTC
Sequence	TCCTCCACACGGAGTCCTCCTCCCCCCCCGAACTAGCTGAGAGCACTGGC
HAC1	TCCTCCACACGGAGTCCTCCTCCCCCCCCGAACTAGCTGAGAGCACTGGC
Sequence	TCAGGCTCGCCATCGTCGACTCTGTCTCGACGAAACTGATTATCTTGT
HAC1	TCAGGCTCGCCATCGTCGACTCTGTCTCGACGAAACTGATTATCTTGT
Sequence	GGACCGGGCGGTCATCCAG-----C
HAC1	GGACCGGGCGGTCATCCAG CAGTGA CTGT CGCACTACTGACCAGC
Sequence	AGCGTCGGCACAAAGATTTCWTTTTCATCAAGGACGAGCCCGTTGACGACG
HAC1	AGCGTCGGCACAAAGATTTCATTTTCATCAAGGACGAGCCCGTTGACGACG
Sequence	AGCTTGGA
HAC1	AGCTTGGA
Sequence	AGCTTGGA
HAC1	AGCTTGGA
Sequence	AAGCAGCCTGCCCAGCAGCACTTTATTGCTGATCTAG
HAC1	AAGCAGCCTGCCCAGCAGCACTTTATTGCTGATCTAG

FIG. 15

5' splice site

P. pastoris atccagcagtgatgacg
S. cerevisiae atccagccgtgattacg
***** ***** ***

3' splice site

P. pastoris ggtctgcagcaccat
S. cerevisiae tgtccgaagcgcagt
*** * *** * *

FIG. 16

NI.	1	atgcccgtagattcttctcataagacagctagcccacttccacctcgtaa	50
I.	1	atgcccgtagattcttctcataagacagctagcccacttccacctcgtaa	50
NI.	51	aagagcaaagacggaagaagaaaaggagcagcgctcgagtggaacgtatcc	100
I.	51	aagagcaaagacggaagaagaaaaggagcagcgctcgagtggaacgtatcc	100
NI.	101	tacgtaataggagagcggcccatgcttccagagagaagaaacgaagacac	150
I.	101	tacgtaataggagagcggcccatgcttccagagagaagaaacgaagacac	150
NI.	151	gttgaatttctggaaaaccacgctcgctcgacctggaatctgcacttcaaga	200
I.	151	gttgaatttctggaaaaccacgctcgctcgacctggaatctgcacttcaaga	200
NI.	201	atcagccaaagccactaacaagttgaaagaaatacaagatatcattgttt	250
I.	201	atcagccaaagccactaacaagttgaaagaaatacaagatatcattgttt	250
NI.	251	caaggttggaagccttaggtggtaccgtctcagatttggatttaacagtt	300
I.	251	caaggttggaagccttaggtggtaccgtctcagatttggatttaacagtt	300
NI.	301	cgggaagtcgattttcccaaactcttctgatttggaaacccatgtctgatct	350
I.	301	cgggaagtcgattttcccaaactcttctgatttggaaacccatgtctgatct	350
NI.	351	ctcaacttcttcgaaaatcggagaaagcatctacatccactcgcagatctt	400
I.	351	ctcaacttcttcgaaaatcggagaaagcatctacatccactcgcagatctt	400
NI.	401	tgactgaggatctggacgaagatgacgtcgctgaatatgacgacgaagaa	450
I.	401	tgactgaggatctggacgaagatgacgtcgctgaatatgacgacgaagaa	450
NI.	451	gaggacgaagagttacccaggaaaatgaaagtcttaaacgacaaaaacaa	500
I.	451	gaggacgaagagttacccaggaaaatgaaagtcttaaacgacaaaaacaa	500
NI.	501	gagcacatctatcaagcaggagaagttgaatgaacttccatctcctttgt	550
I.	501	gagcacatctatcaagcaggagaagttgaatgaacttccatctcctttgt	550
NI.	551	catccgatttttccagacgtagatgaagaaaagtcaactctcacacattta	600
I.	551	catccgatttttccagacgtagatgaagaaaagtcaactctcacacattta	600
NI.	601	aagttgcaacagcaacaacaacaaccagtagacaattatgtttctactcc	650
I.	601	aagttgcaacagcaacaacaacaaccagtagacaattatgtttctactcc	650

FIG.17A

NI.	651	tttgagtcttccggaggattcagttgatttttattaacccaggtaacttaa	700
I.	651	tttgagtcttccggaggattcagttgatttttattaacccaggtaacttaa	700
NI.	701	aaatagagtccgatgagaacttcttggttgagttcaaatactttacaaata	750
I.	701	aaatagagtccgatgagaacttcttggttgagttcaaatactttacaaata	750
NI.	751	aaacacgaaaatgacaccgactacattactacagctccatcagggttccat	800
I.	751	aaacacgaaaatgacaccgactacattactacagctccatcagggttccat	800
NI.	801	caatgatttttttaattcttatgacattagcgagtcgaatcggttgcac	850
I.	801	caatgatttttttaattcttatgacattagcgagtcgaatcggttgcac	850
NI.	851	atccagcagtgatgacggattcatctttacacattacagcagggtccatc	900
I.	851	atccag-----	855
NI.	901	ggcttttttctcttttgattgggggggggaaagtctctgtagcagggaggcg	950
I.	856	-----	855
NI.	951	cagttcagttggcacatcagttgacatgcatacgatcagggtgatg	1000
I.	856	-----	855
NI.	1001	tcttggttaactggtatgccaaagtcaaccgttttcggcgctacctactctc	1050
I.	856	-----	855
NI.	1051	tactttaactcttgaattgagatgaaacaatcgcccttgttcgagacgcg	1100
I.	856	-----	855
NI.	1101	tagttaatttaagatgaatcaatttgcaacaaaagaacaaacgaaaaaga	1150
I.	856	-----	855
NI.	1151	taacagcaaacttaagtttcgtggtctgcagcaccatttaccgctaatagc	1200
I.	856	-----cagcaccatttaccgctaatagc	878
NI.	1201	atgttgattttaaatagactttgtattcttccaggaatag	1237
I.	879	atgttgattttaaatagactttgtattcttccaggaatag	915

FIG.17B

P.pastoris	1	APFTANAFDLNDFVFFQE
18		
		 : :
S.cerevisiae	1	EAQSGGLNSFELNDFFIT
18		

FIG. 18

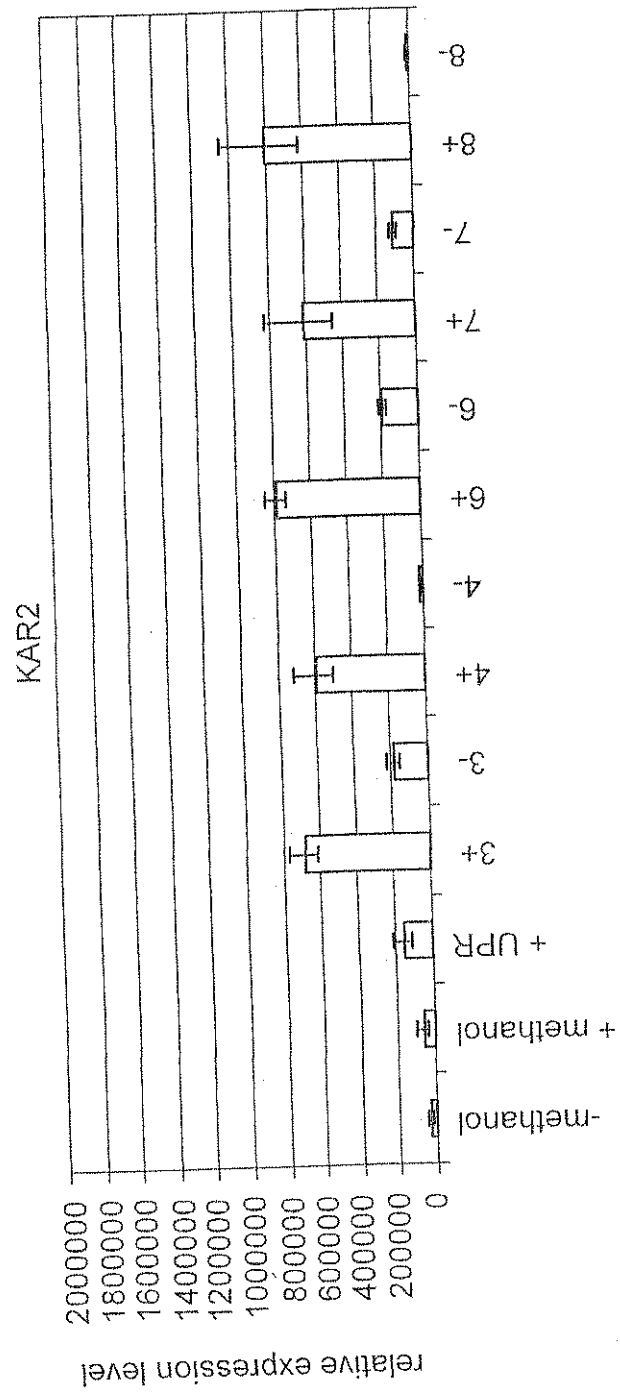


FIG. 19

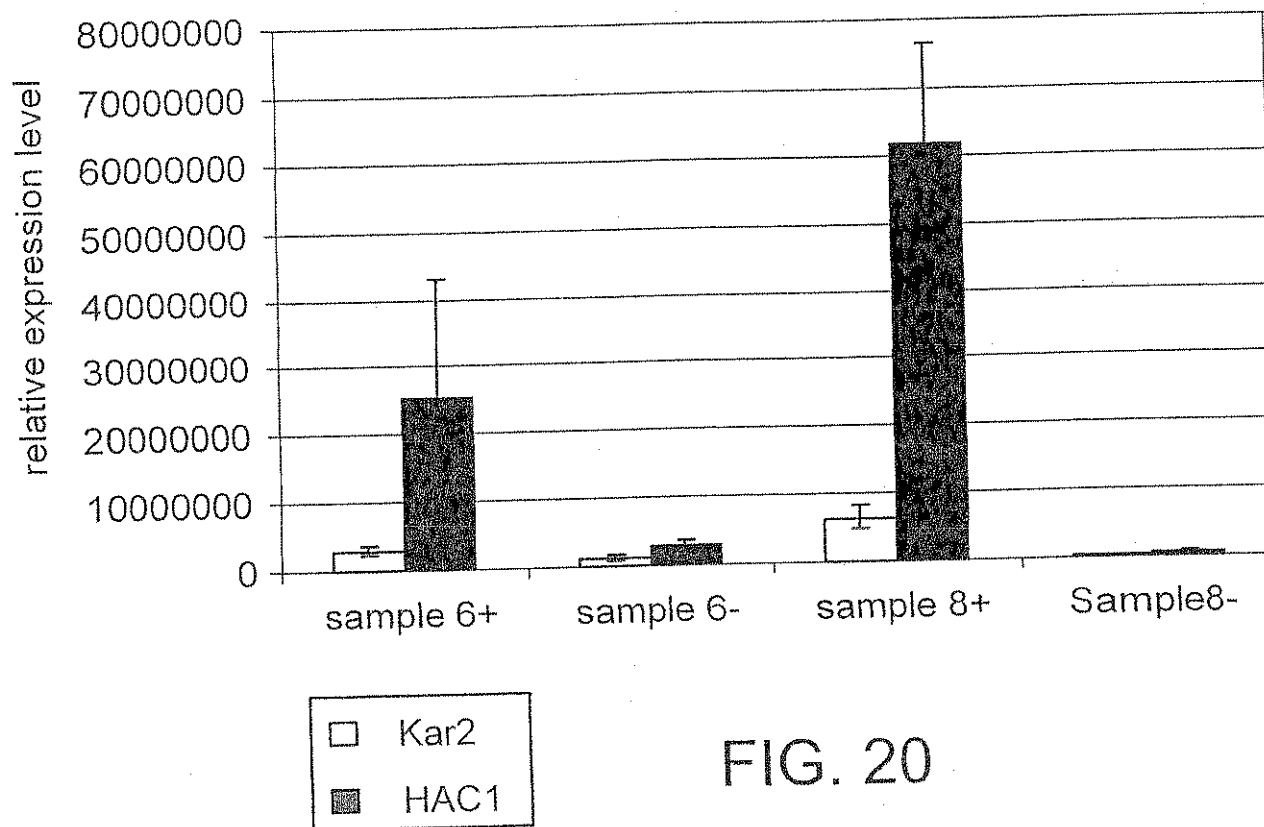


FIG. 20

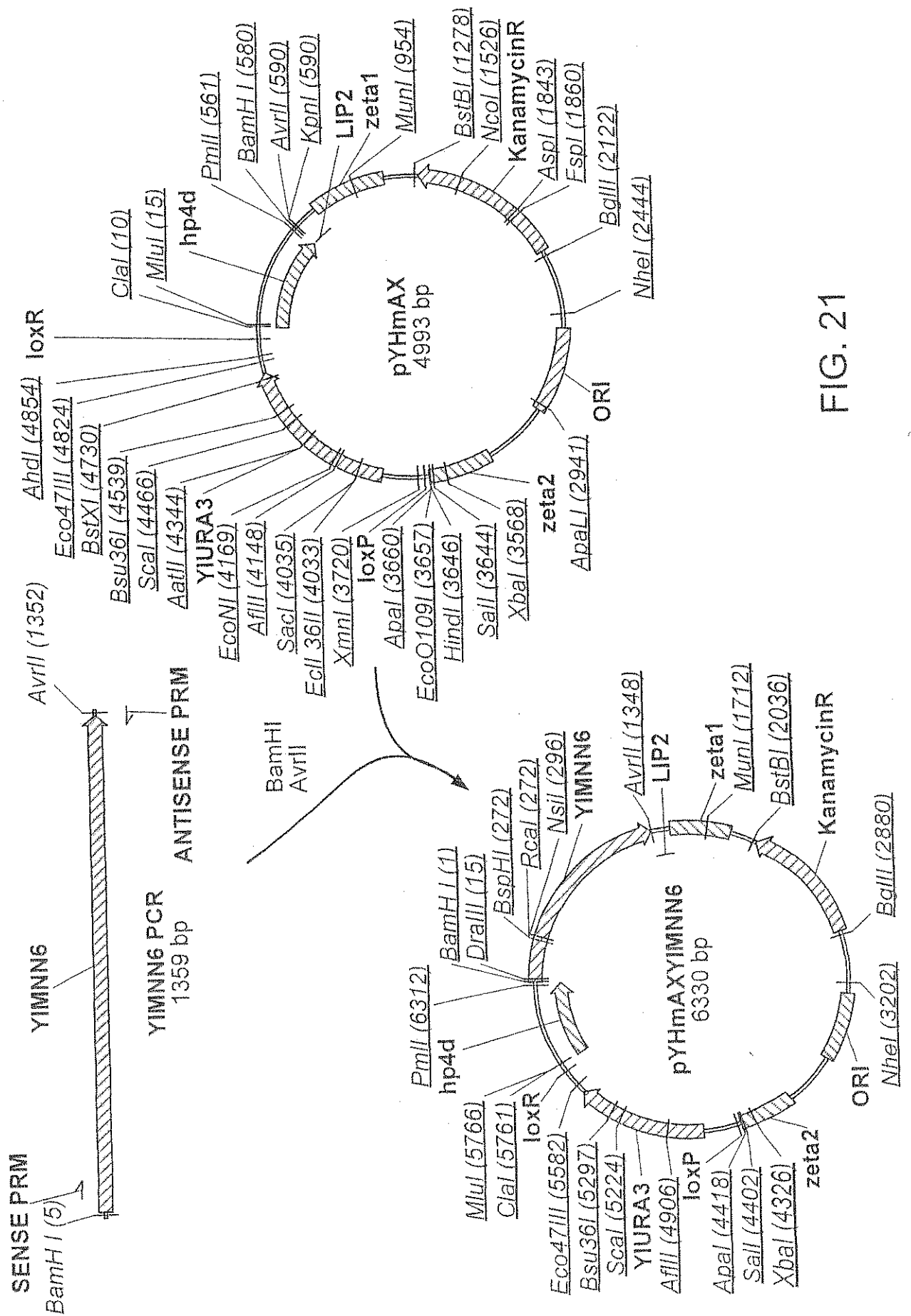


FIG. 21

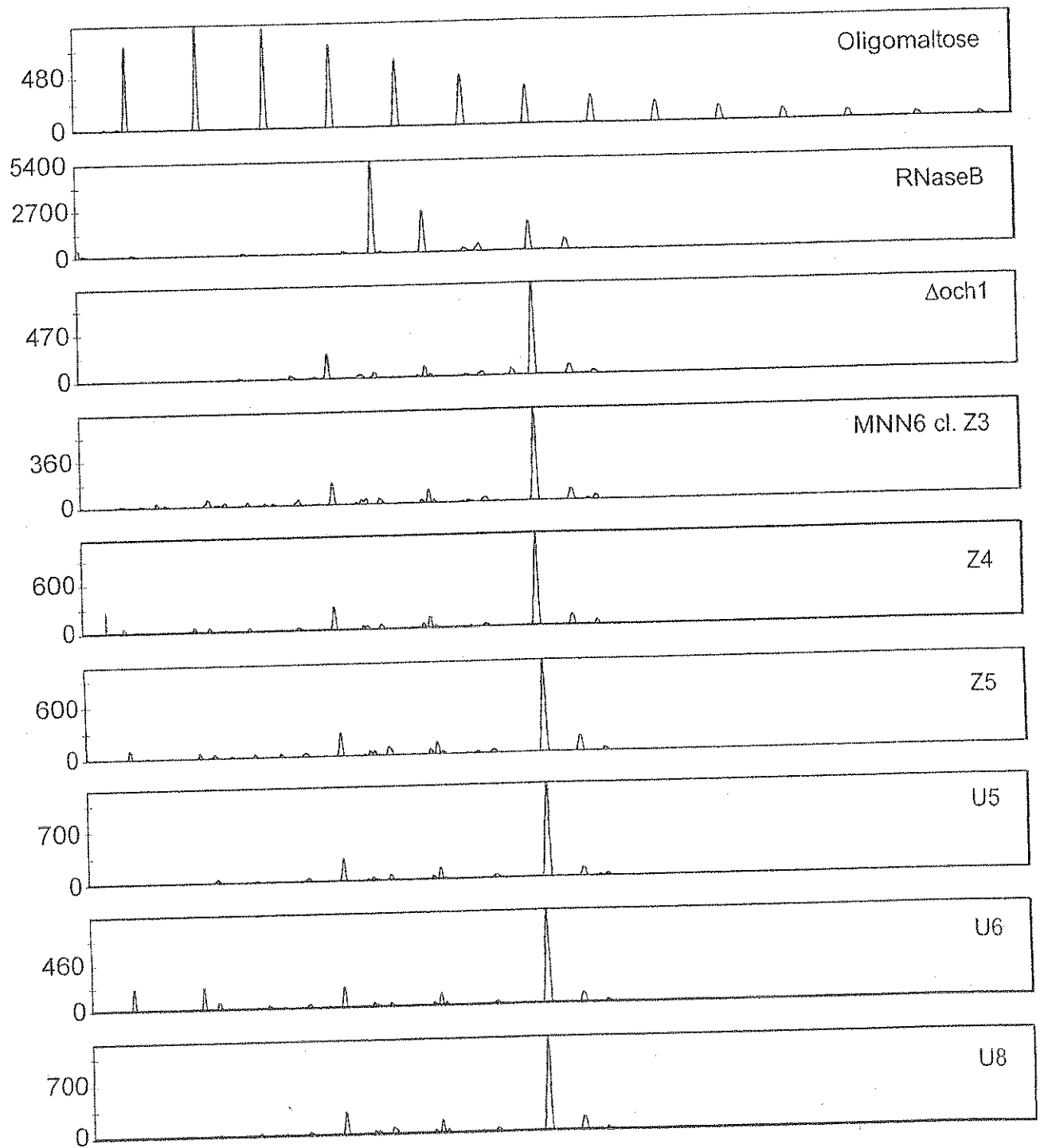


FIG. 22

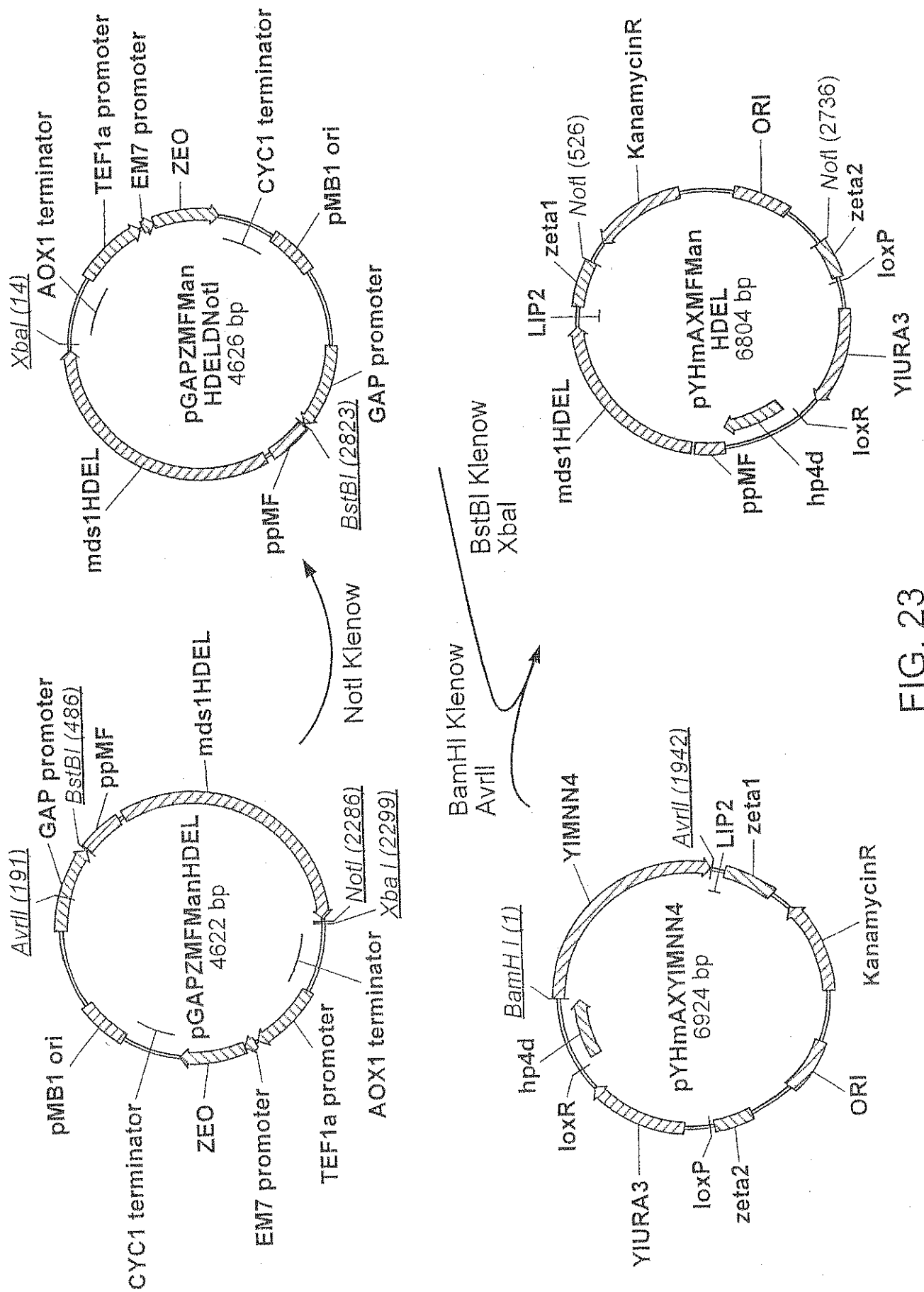


FIG. 23

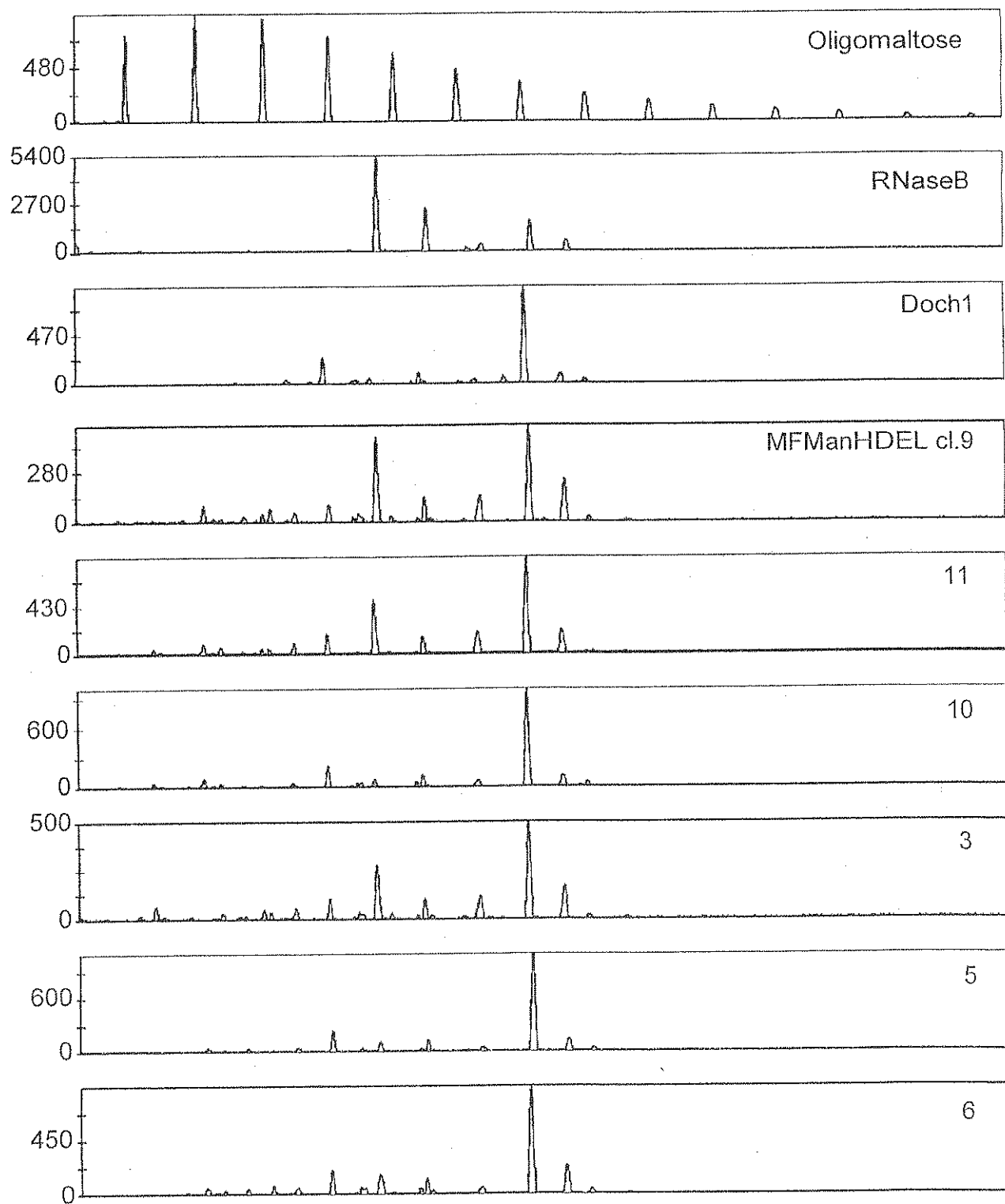


FIG. 24

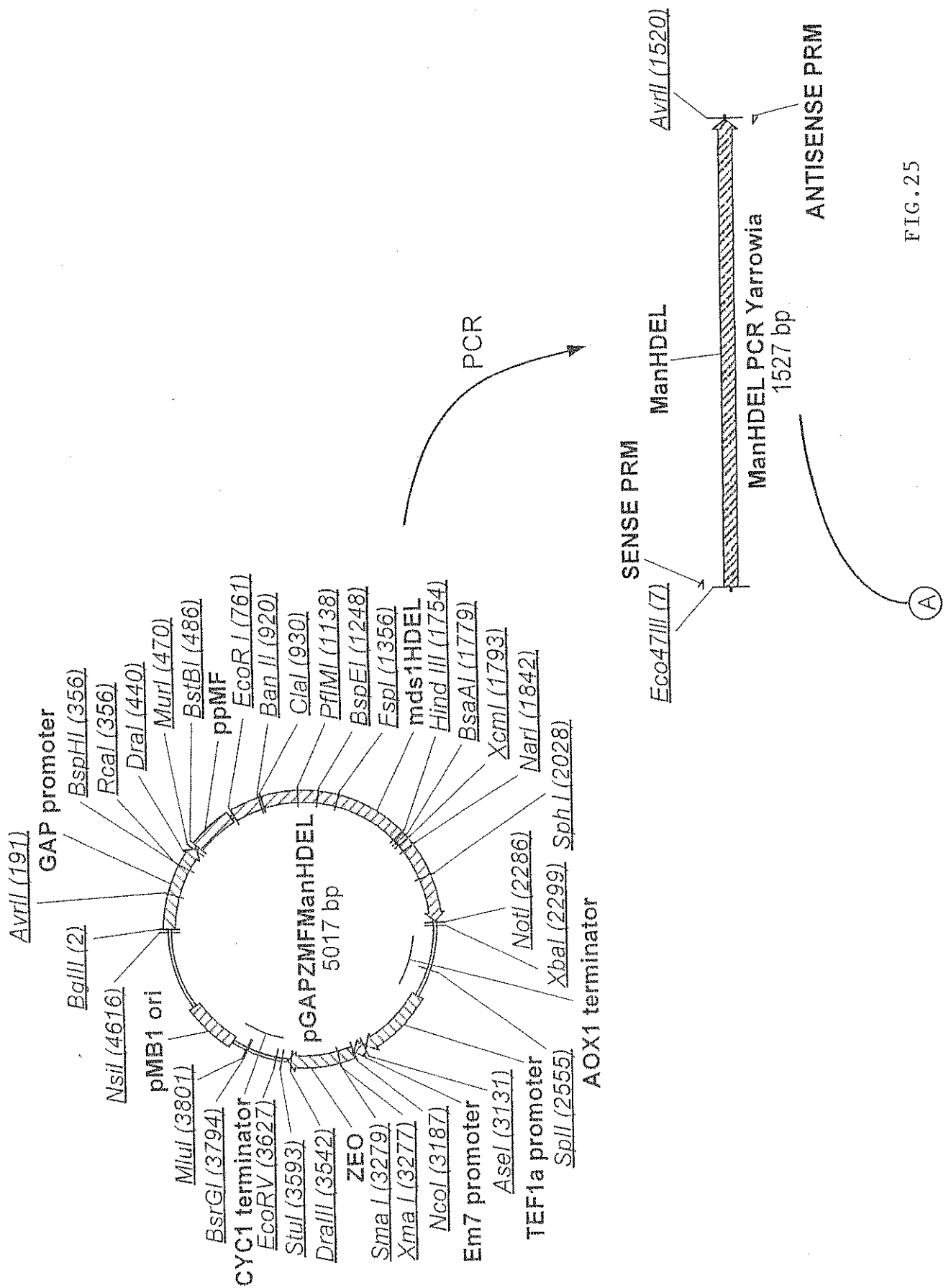


FIG.25

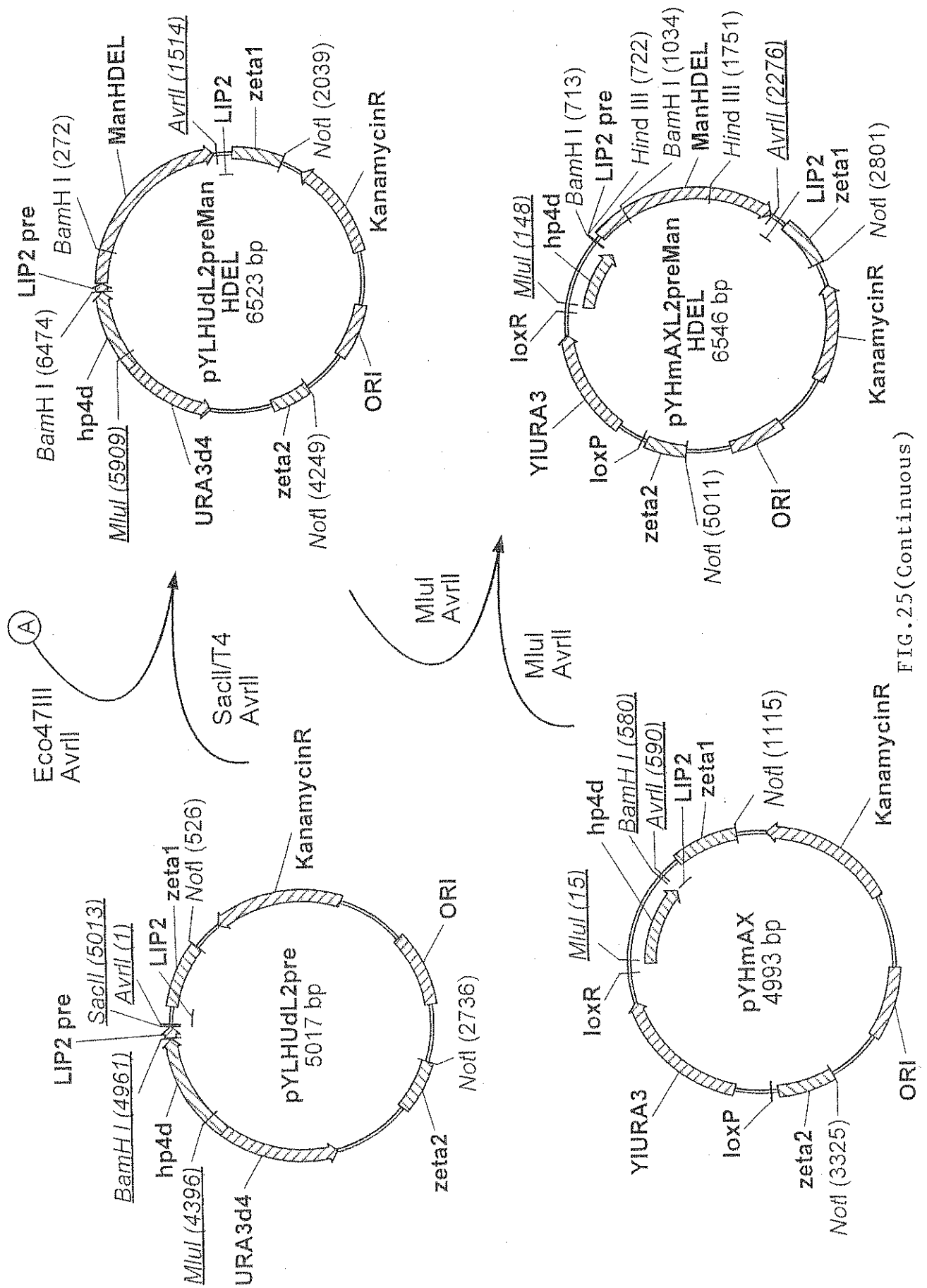


FIG.25(Continuous)

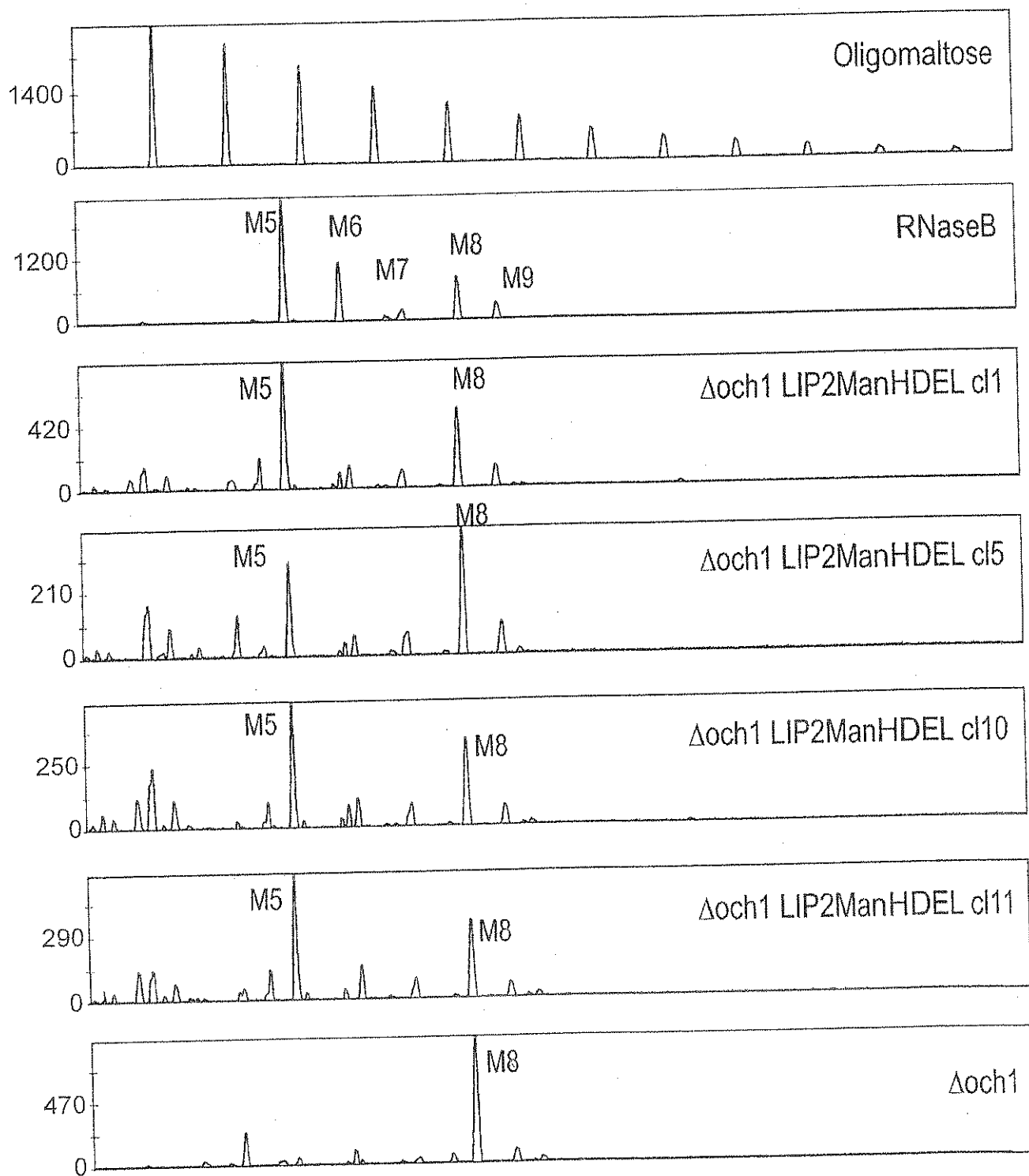


FIG. 26

MSIKREESFTPTPEDLGSPLTADSPGSPESGDKRKKDLTLP
LPAGALPPRKRAKTENEKEQRRIERIMRNRQA AHASREKKRRH
LEDLEKKCSELSSSENNDLHHQVTESKKTNMHLMEQHYSLVAK
LQQLSSLVNMAKSSGALAGVDVPDMSDVSMAPKLEMPAAPS
QPMGLASAPTLFNHDNETVVPDSPIVKTEEV DSTNFLHTESSS
PPELAESTGSGSPSSTLSCDET DYLVDRARHPAASAQDFIFIKD
EPVDDELGLHGLSDDFTLFEDNKQPAQHDFIADLAHYESSVSN
LFGGLE

FIG. 27A

MPVDSSHKTASPLPPRKRAKTEEEKEQRRVERILRNRRAA
HASREKKRRRHVEFLENHVVDLESALQESAKATNKLKEIQDIIV
SRLEALGGTVSDLDLTVP EVDFPKSSDLEPMSDLSTSSKSEKAS
TSTRRLTEDLDEDDVAEYDDEEEDEELPRKMKVLNDKNKSTS
IKQEKLNELPSPLSSDFSDVDEEKSTLTHLKLQQQQQQQPVDNY
VSTPLSLPEDSVDFINPGNLKIESDENFLLSSNTLQIKHENDTD
YITTAPSGSINDFFNSYDISESNRLHHPAAPFTANAFDLNDFVF
FQE

FIG. 27B

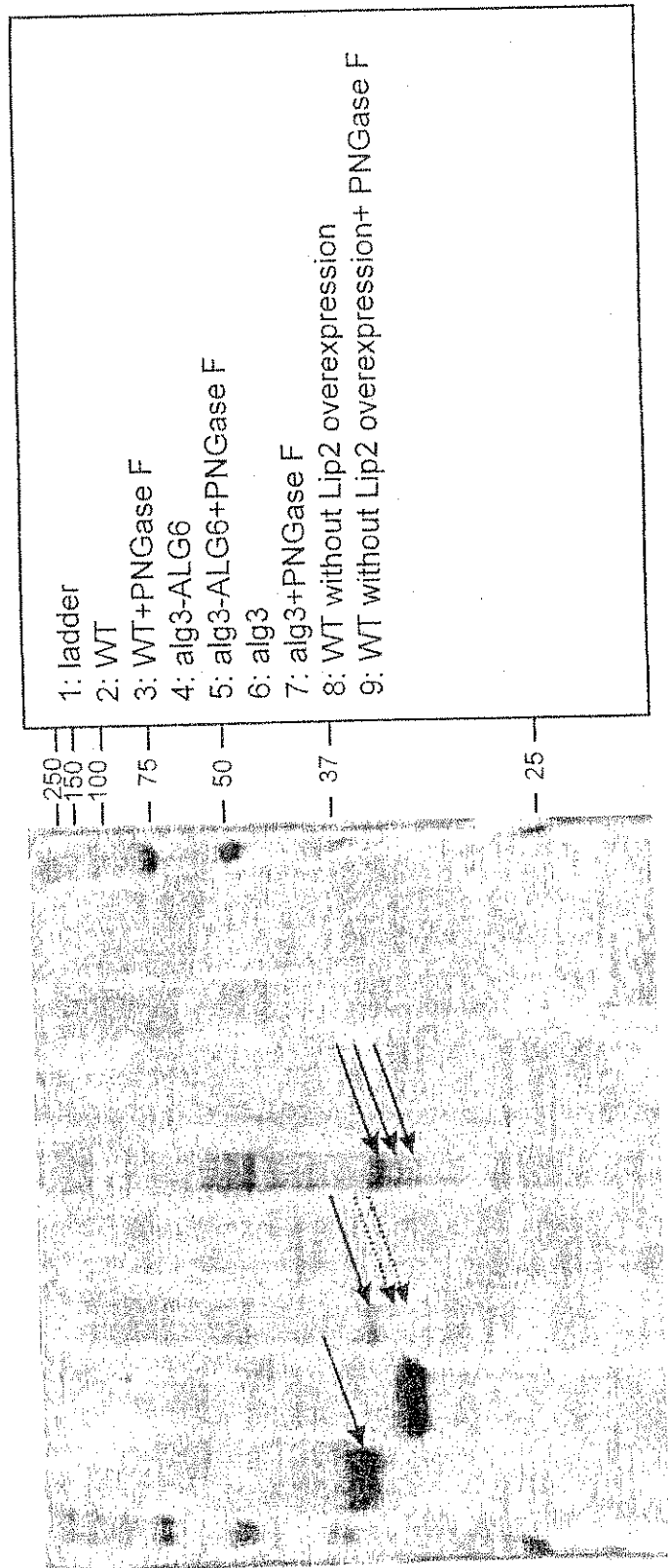


FIG. 28

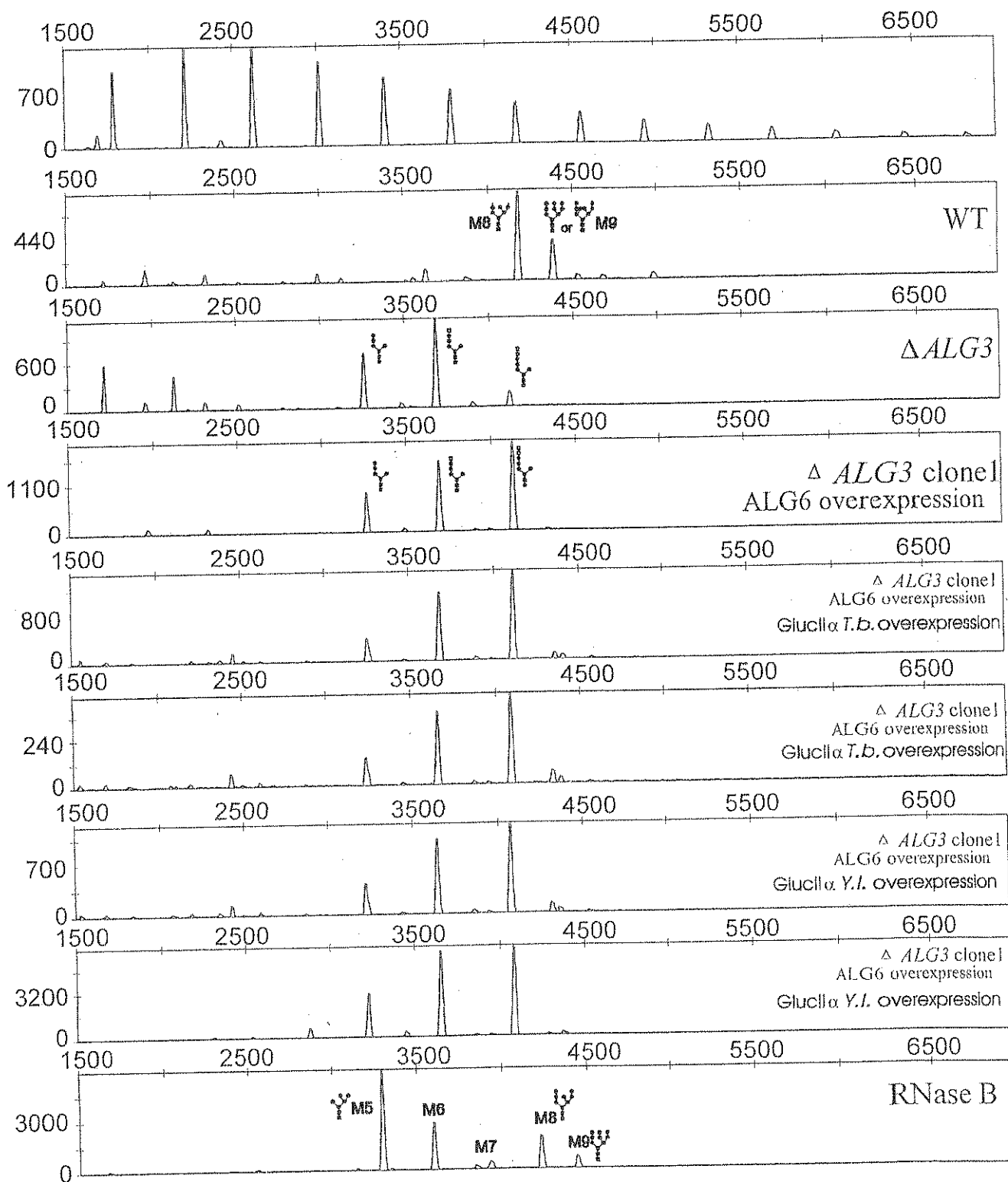


FIG. 29

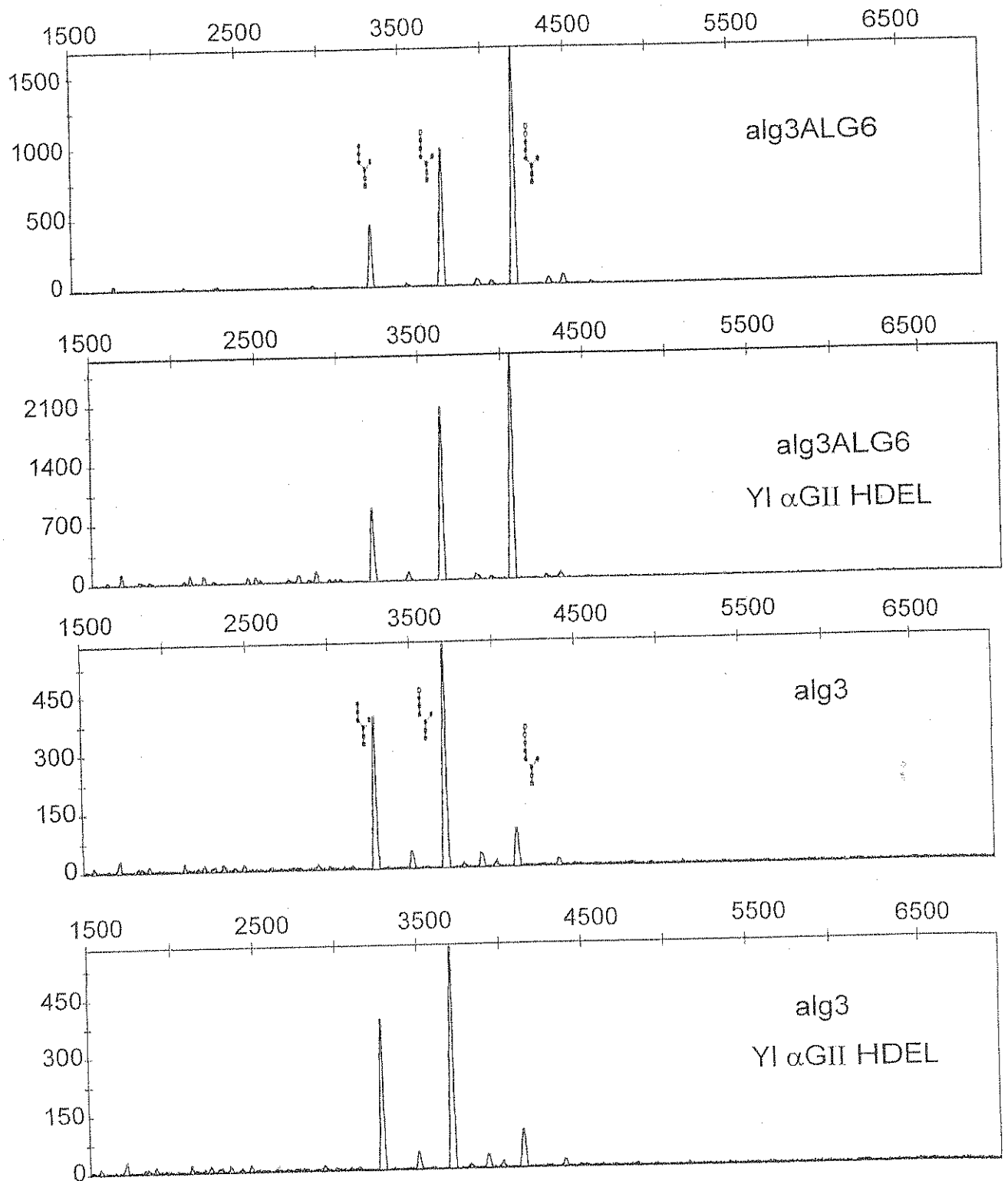


FIG. 30

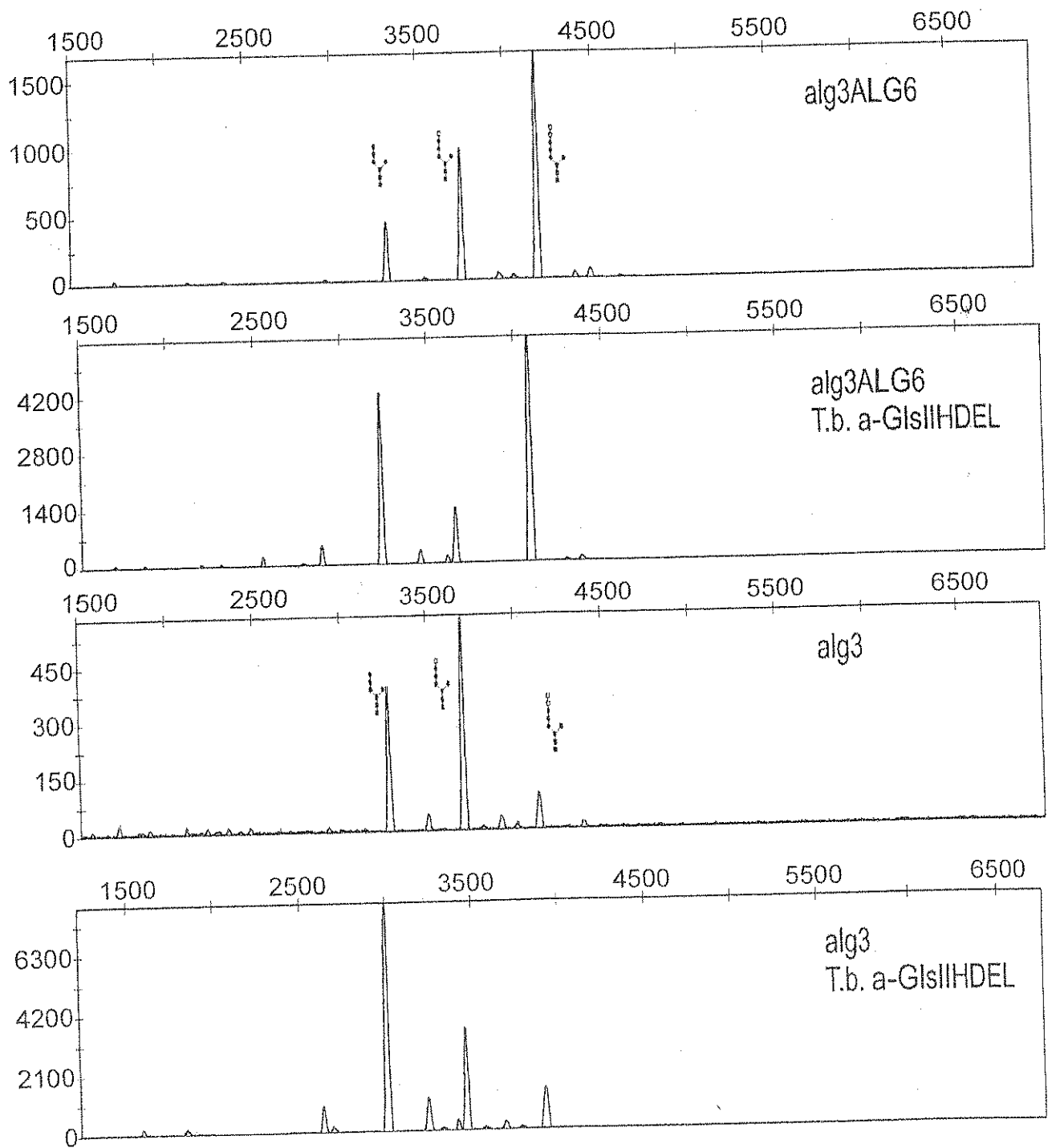


FIG. 31

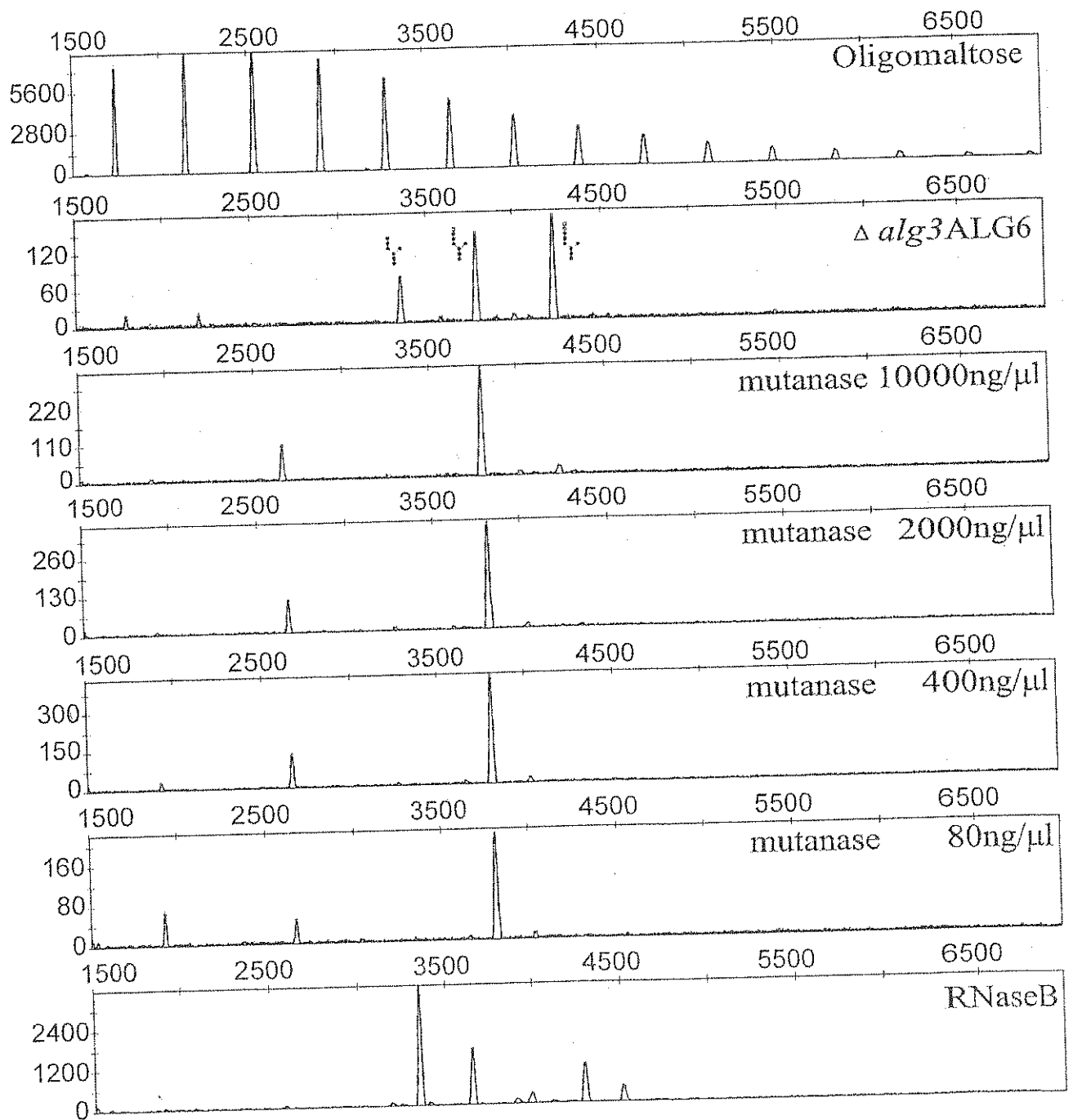


FIG. 32

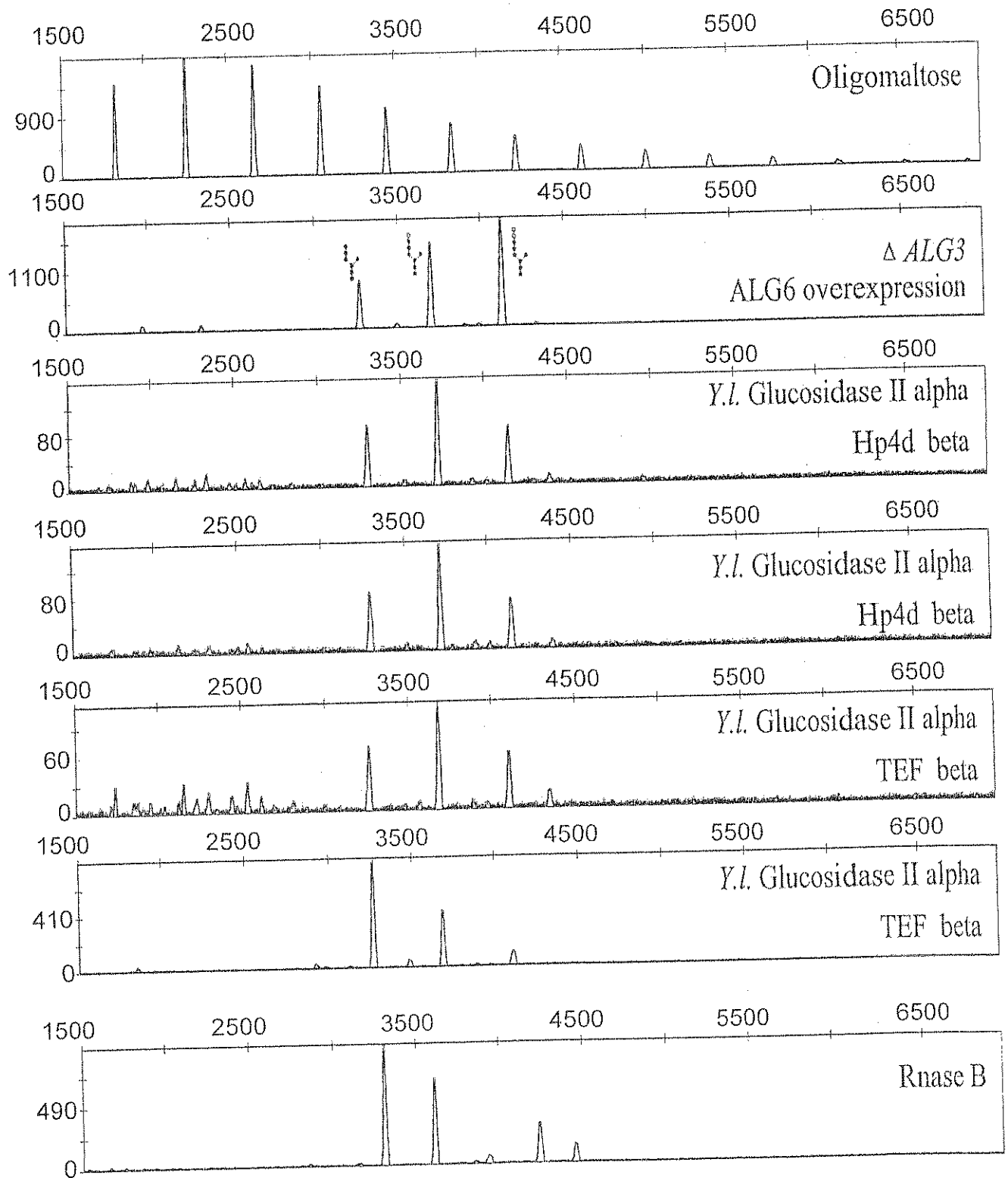


FIG. 33

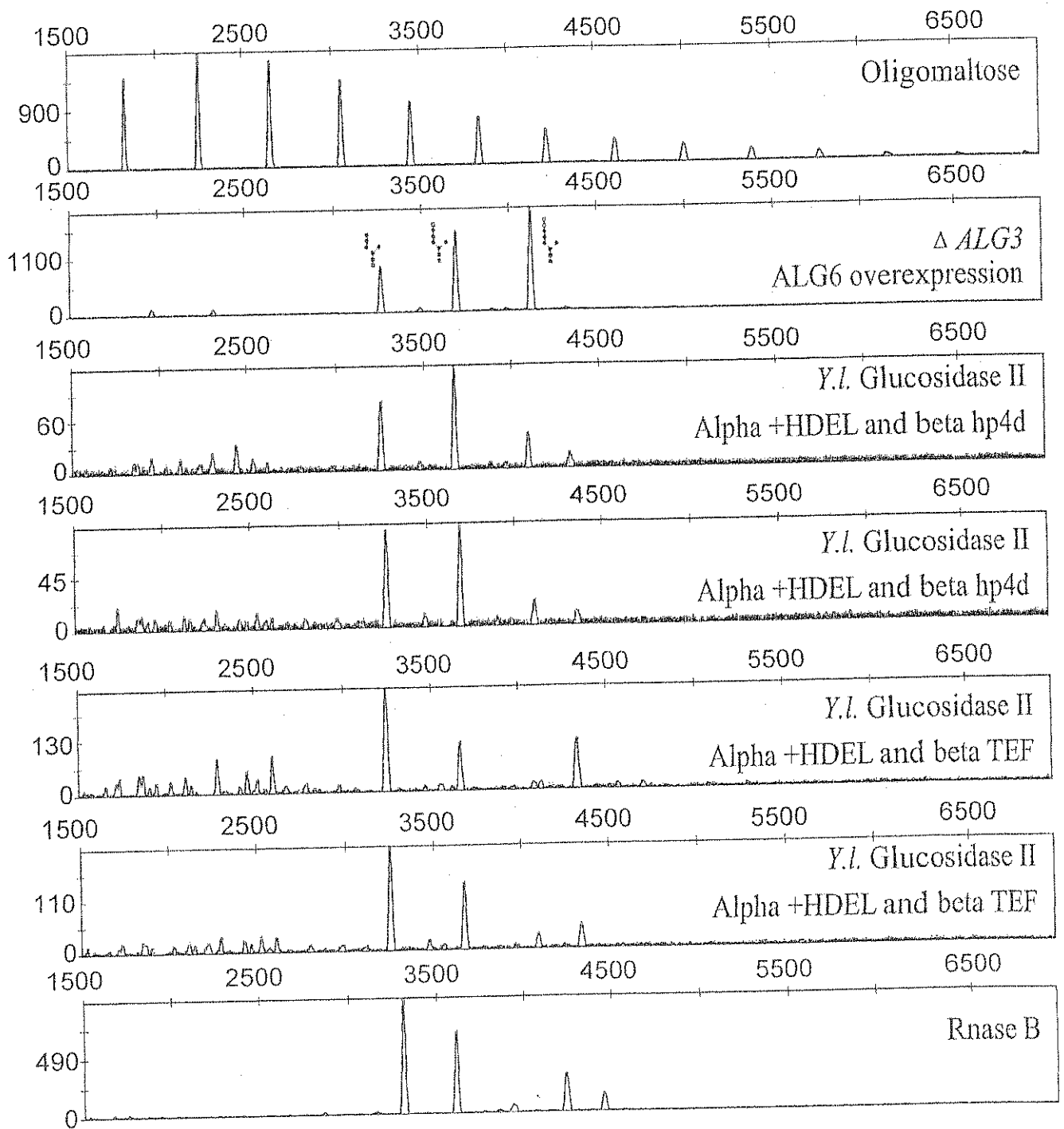


FIG. 34

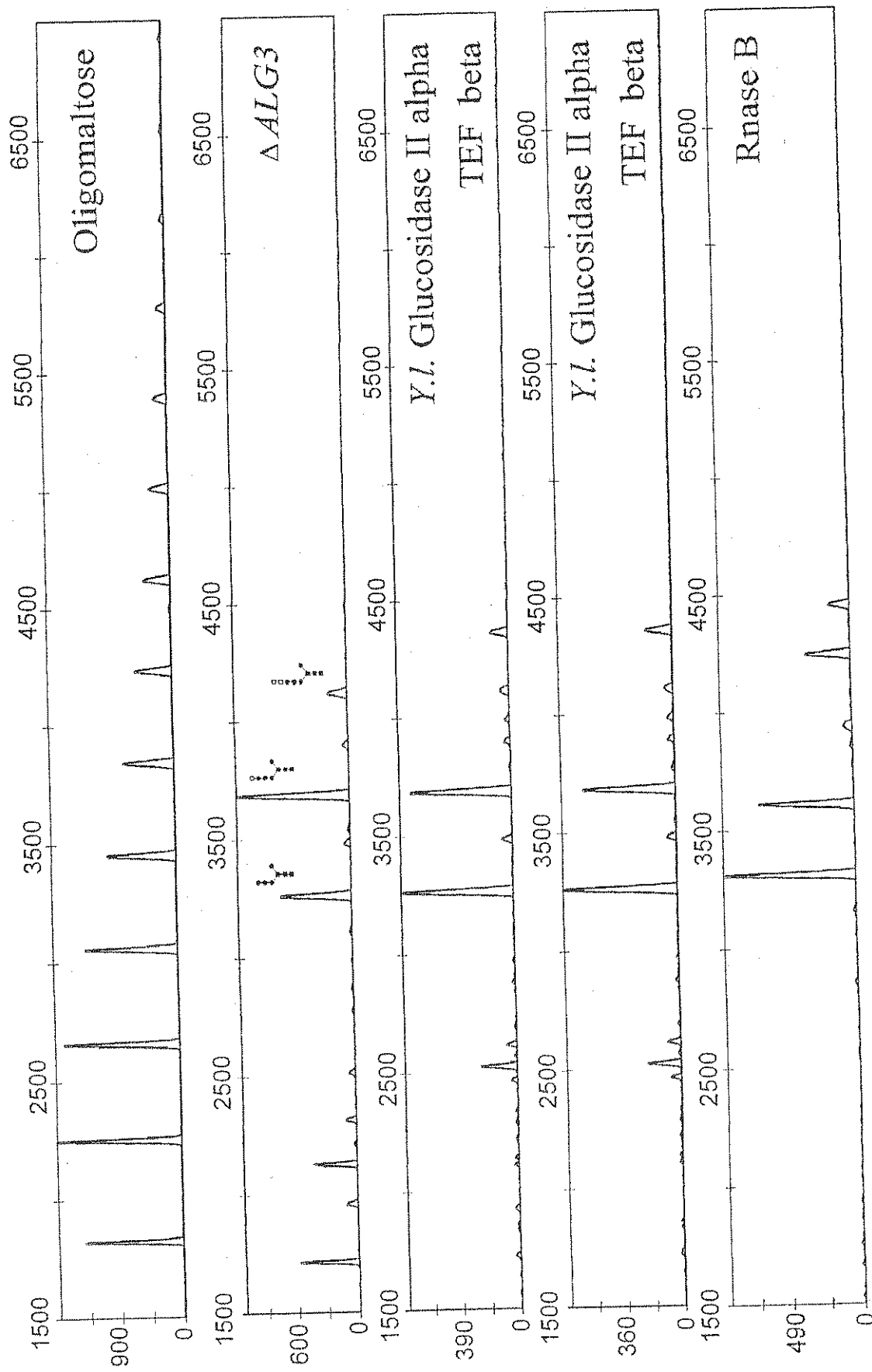


FIG. 35

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FIG. 36A

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FIG. 36B

agcgcctggcgacgcctcttctcgacccccgagggcgtgggccccgagttcgccaagtctacaaggacaccaccacc
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FIG. 37

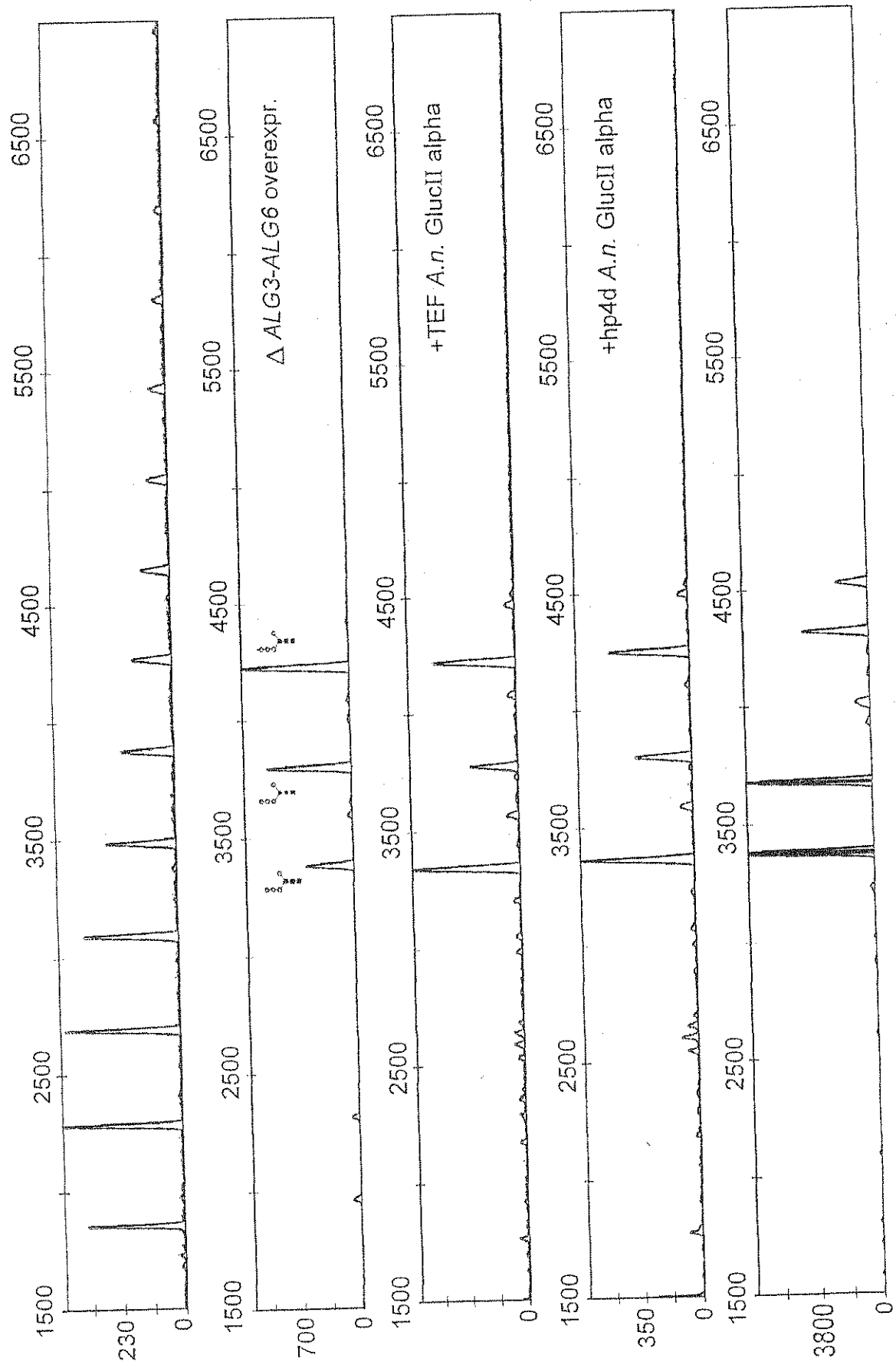


FIG. 38

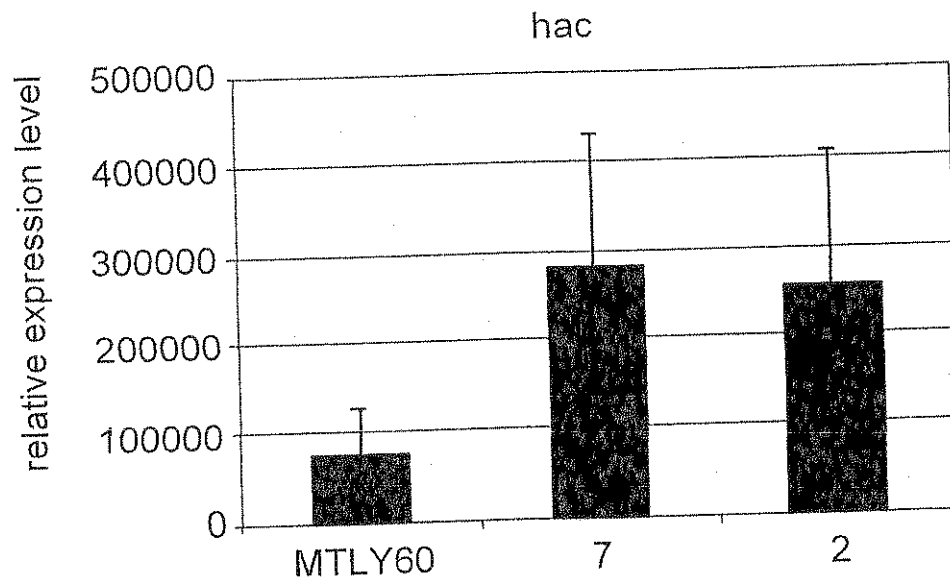


FIG. 39A

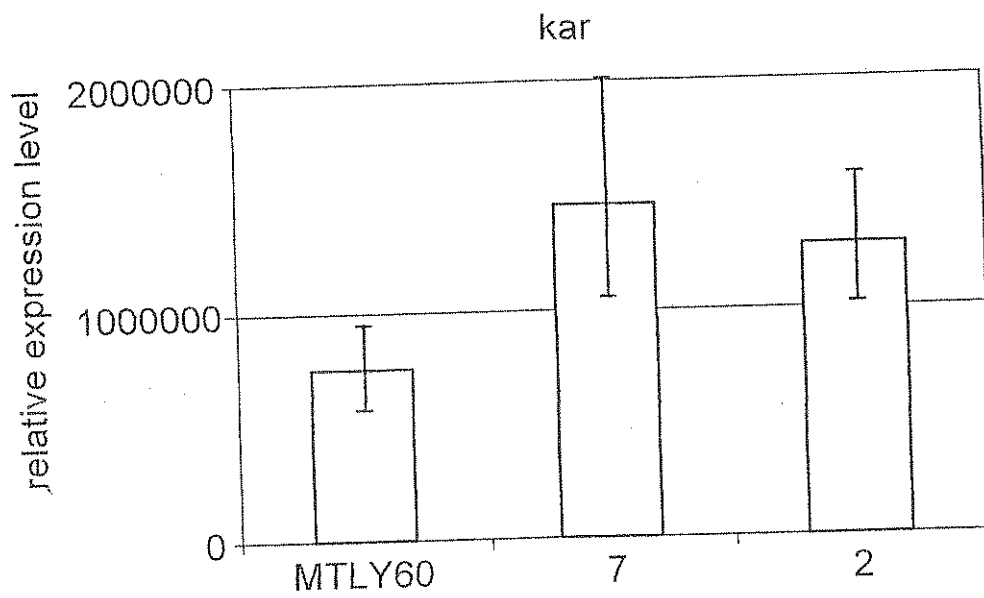


FIG. 39B

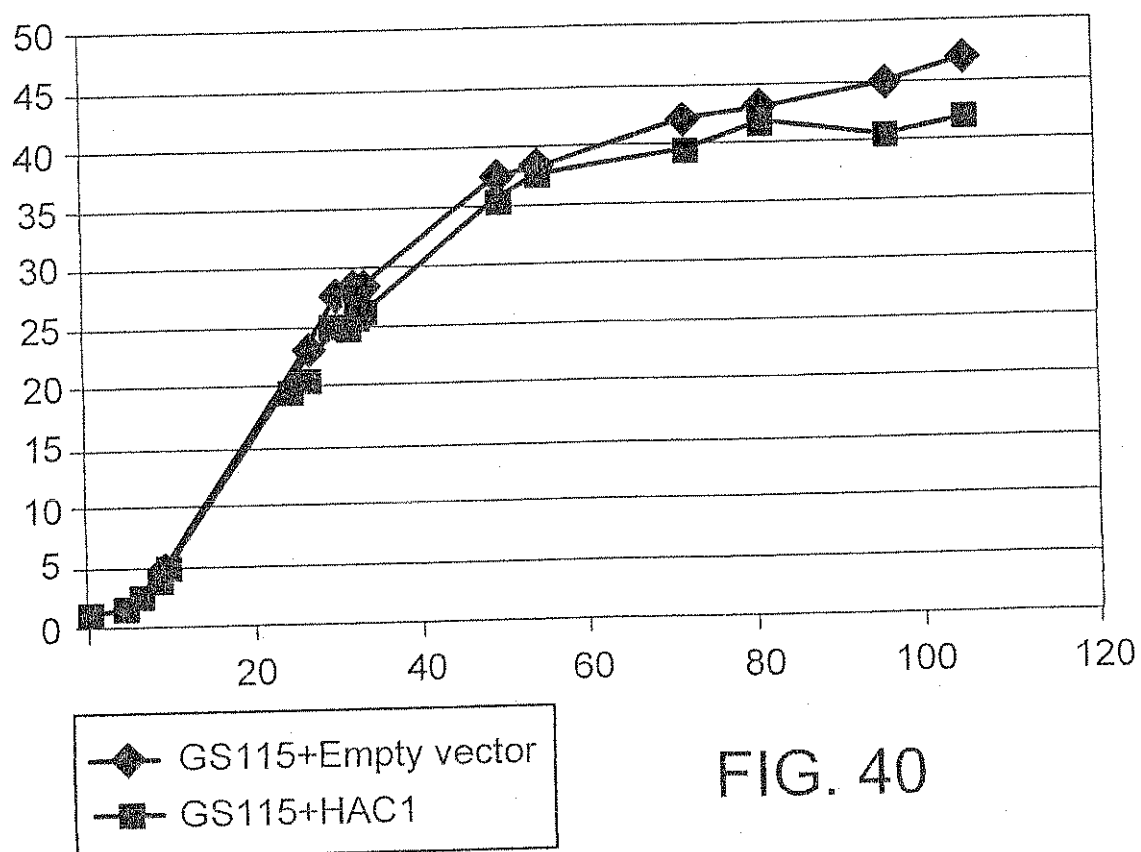


FIG. 40

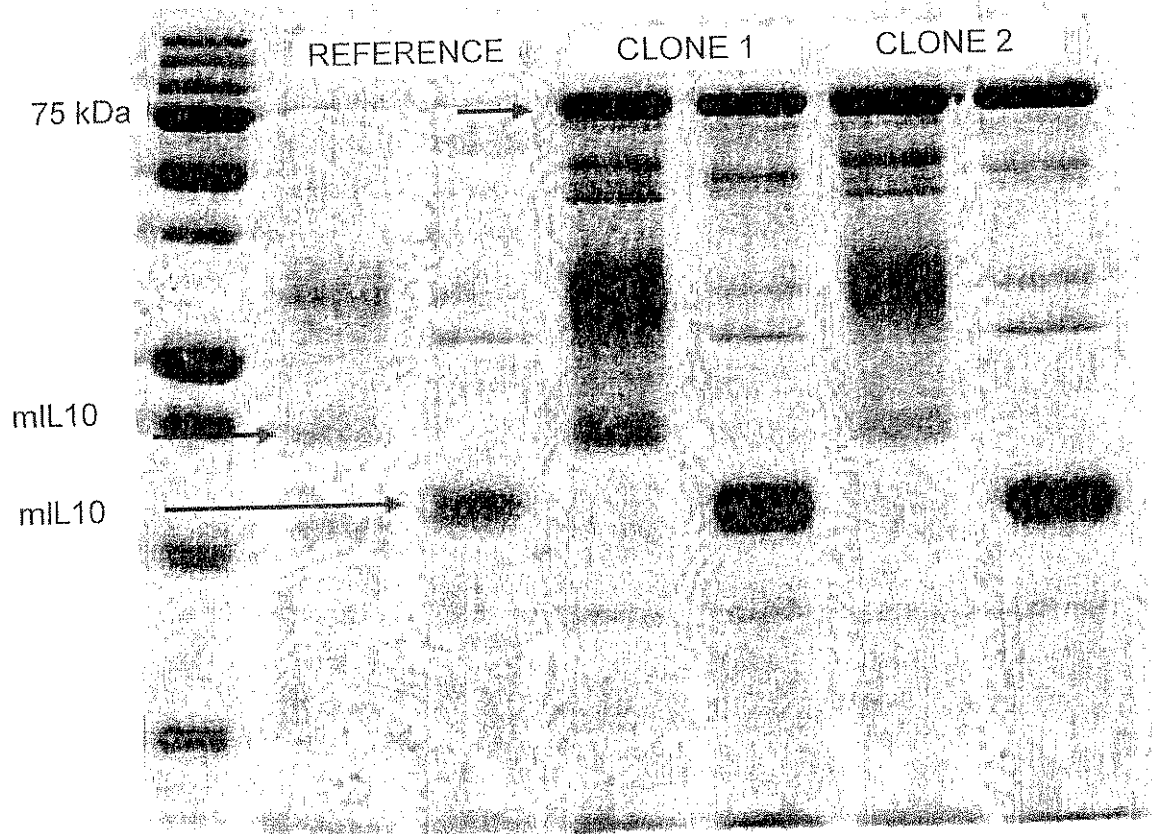


FIG. 41

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FIG. 42

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cttgaattaaacacacatcaaca

FIG. 43

FIG. 44A

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FIG. 44B

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FIG. 44C

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FIG. 45A

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FIG. 45B

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FIG. 45C

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FIG. 46A

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FIG. 46B

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FIG. 46C

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FIG. 47A

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FIG. 47B

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FIG. 47C

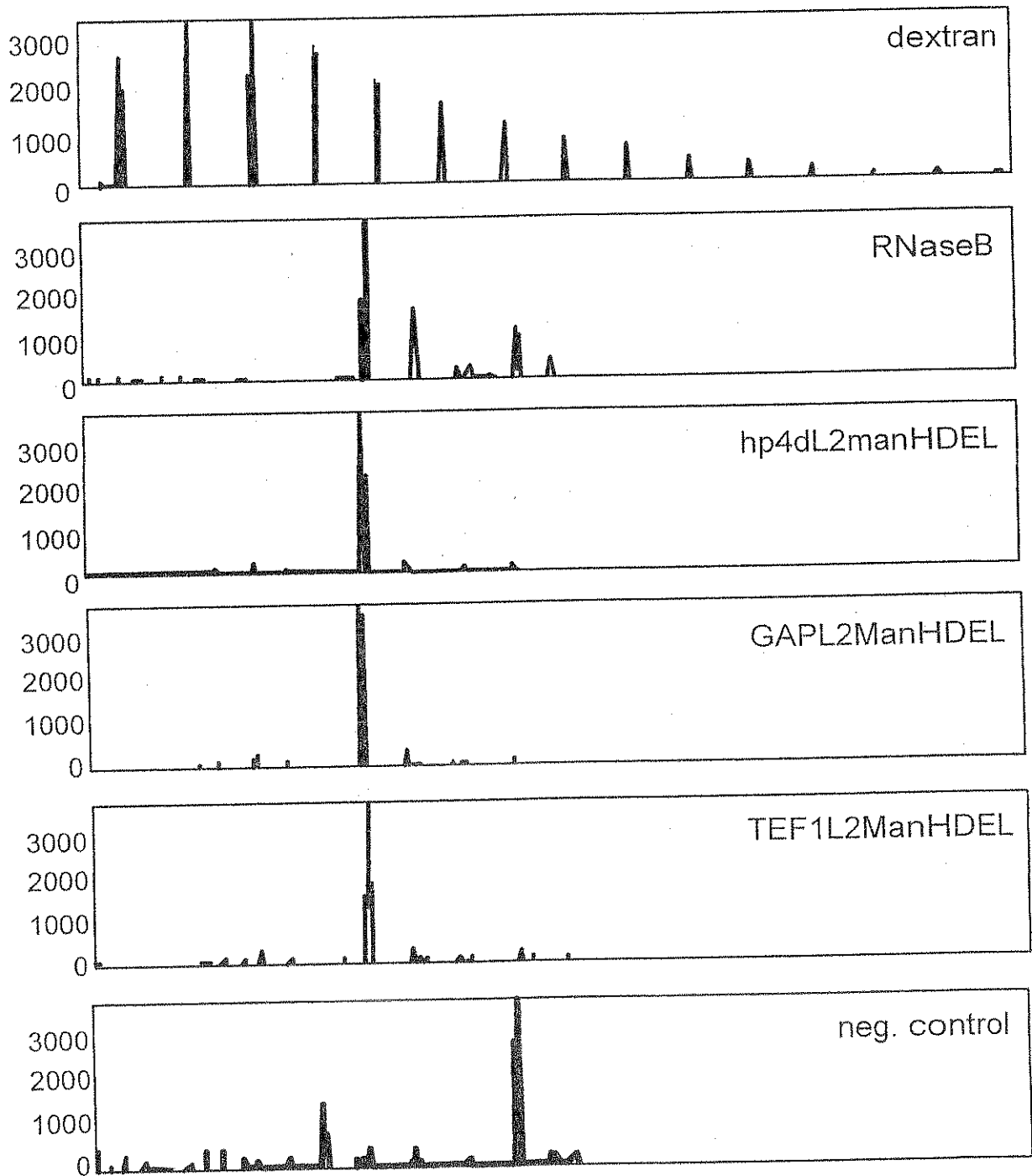


FIG. 48

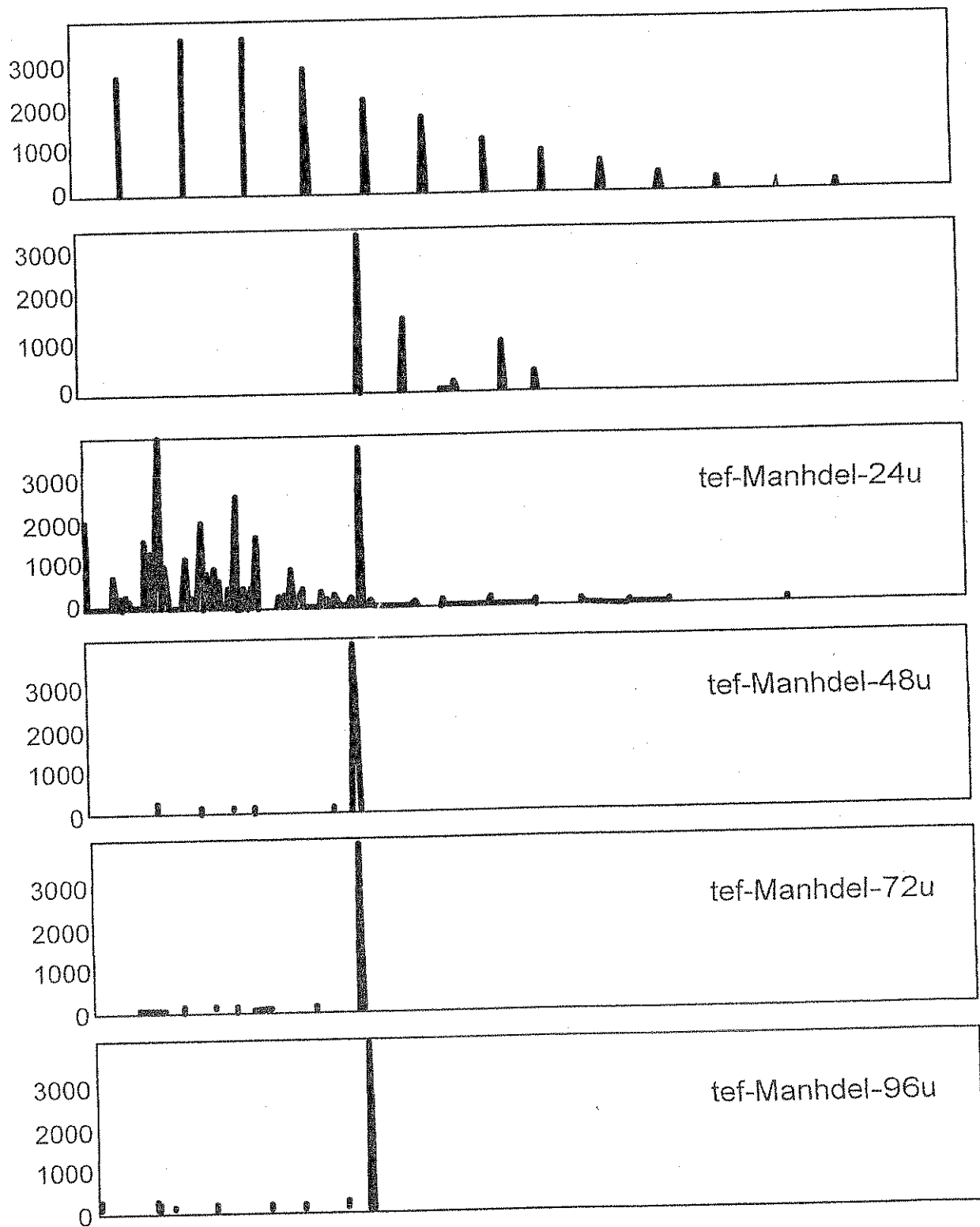


FIG. 49

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FIG. 50

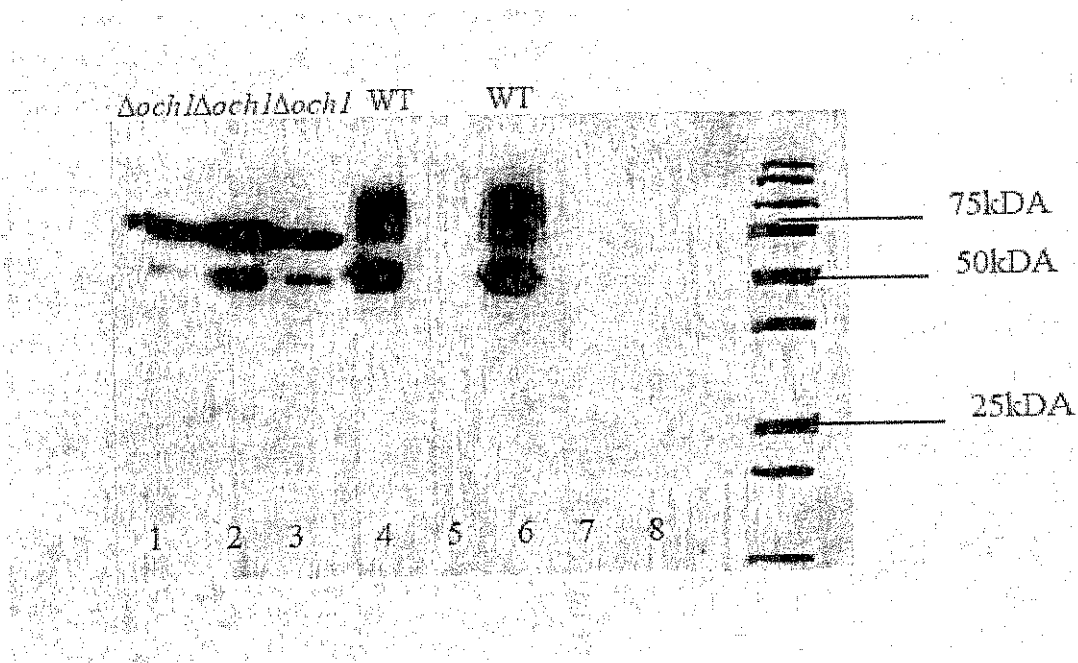


FIG. 51

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FIG. 52

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FIG. 53

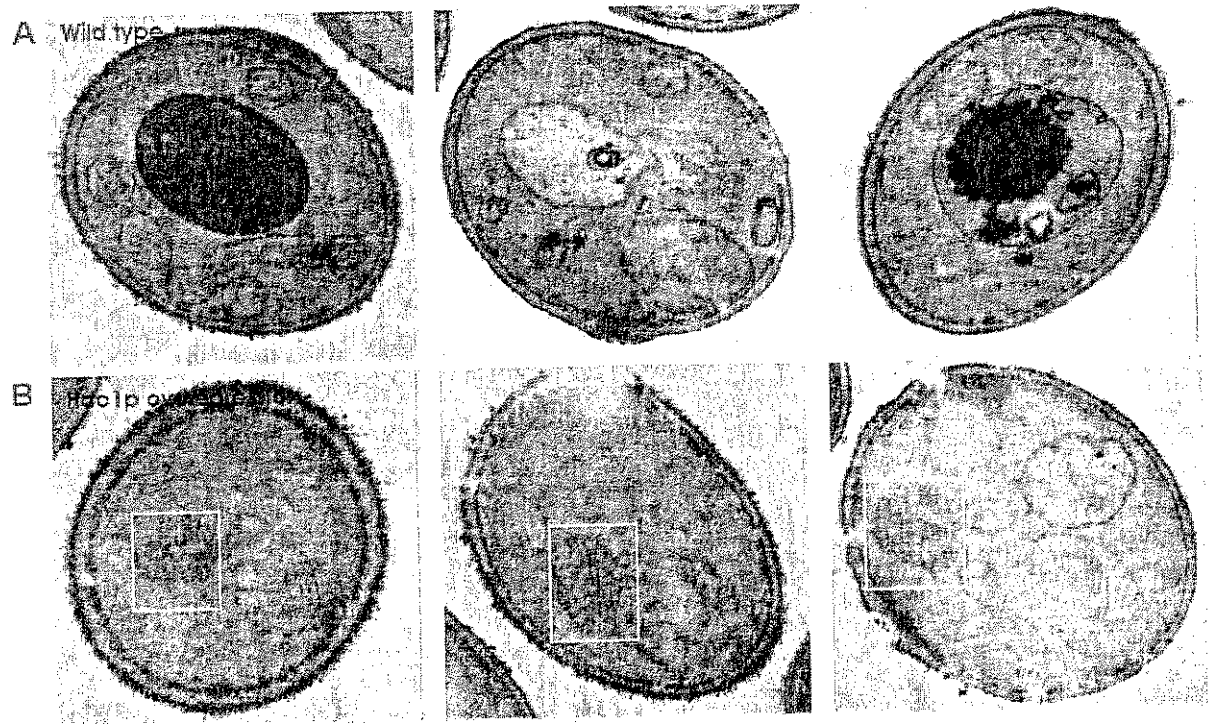


FIG. 54

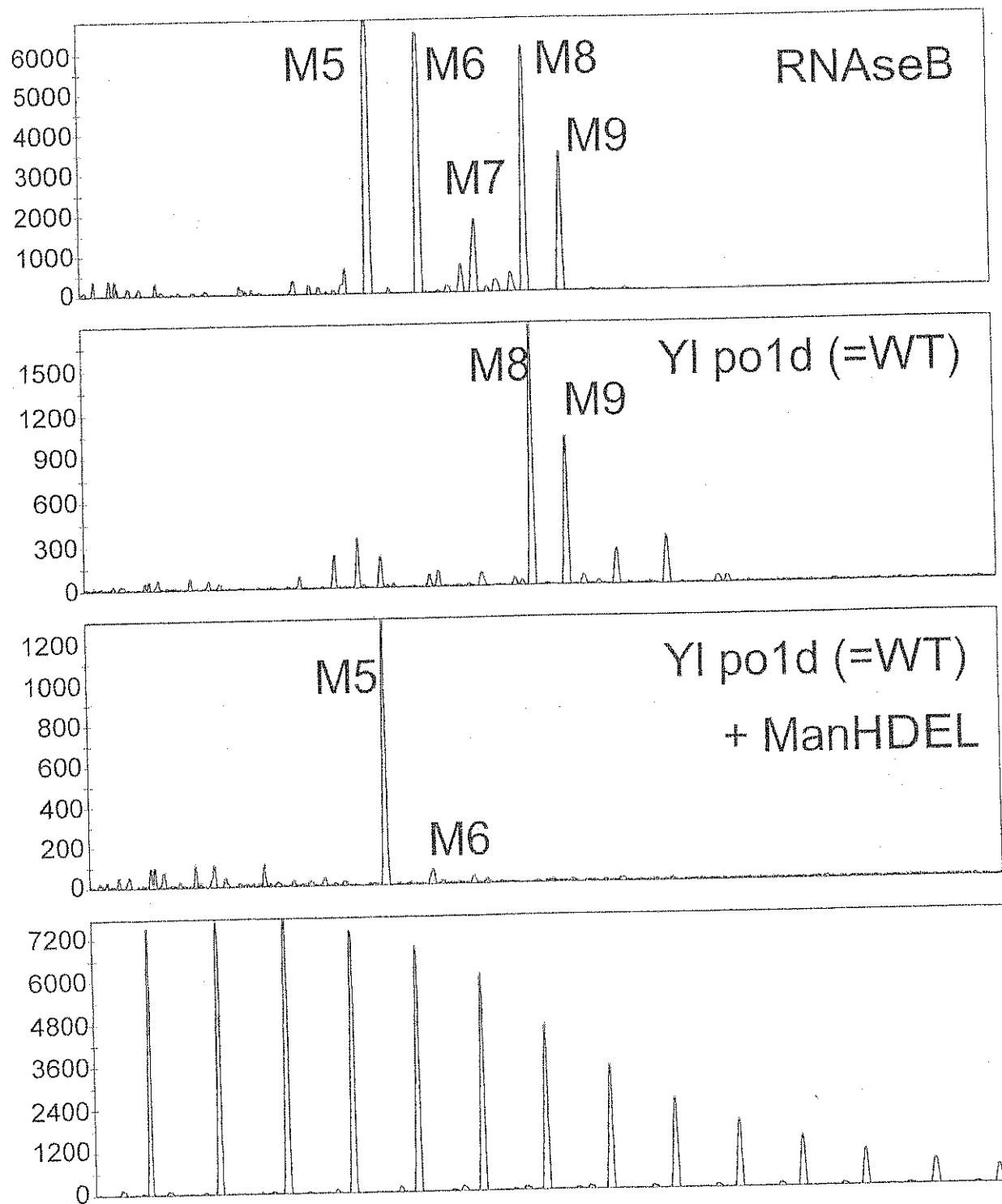


FIG. 55