

EDITORIAL NOTE - NUMBER 79714/94

**THE DRAWING SHEETS IN THIS SPECIFICATION WERE ACCEPTED AS 1/32
TO 7/32 AND 8/29 TO 29/29**

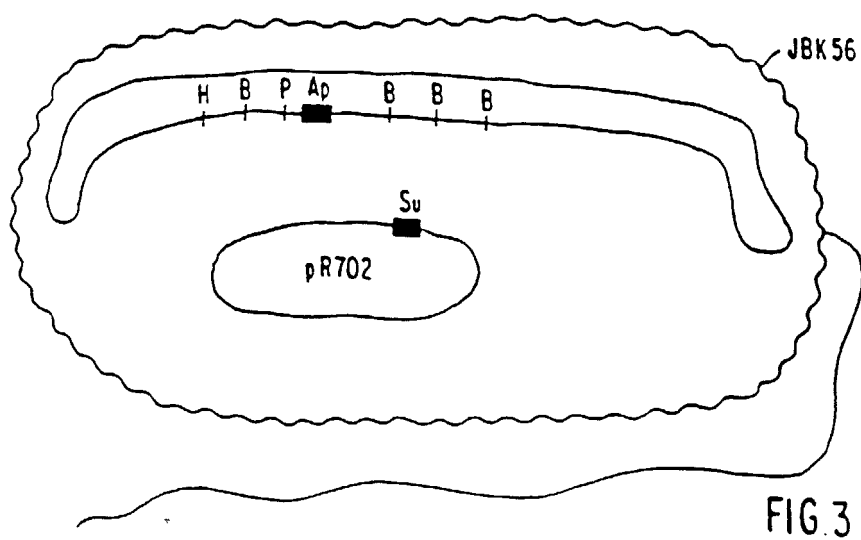
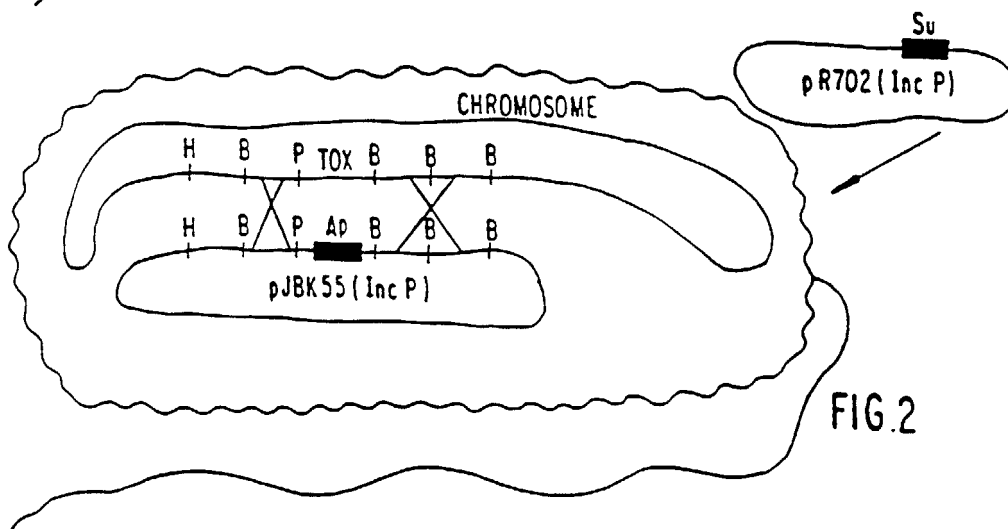
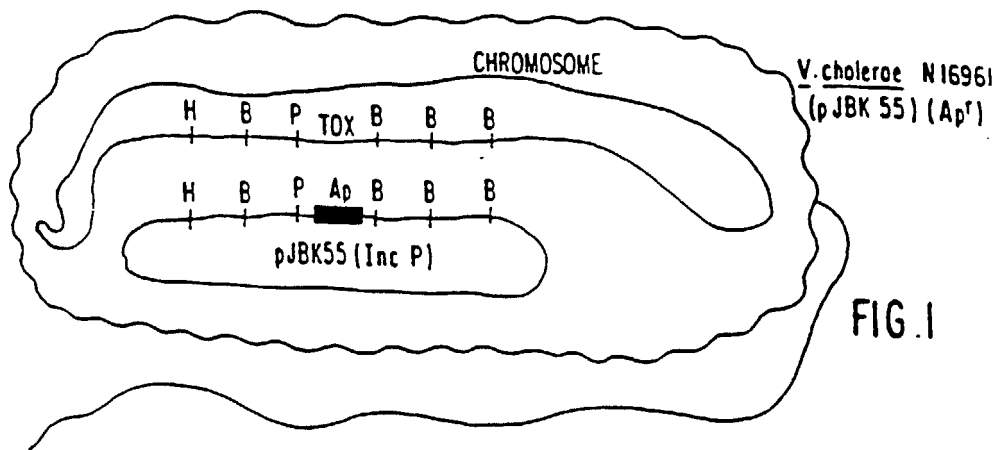


FIG. 5

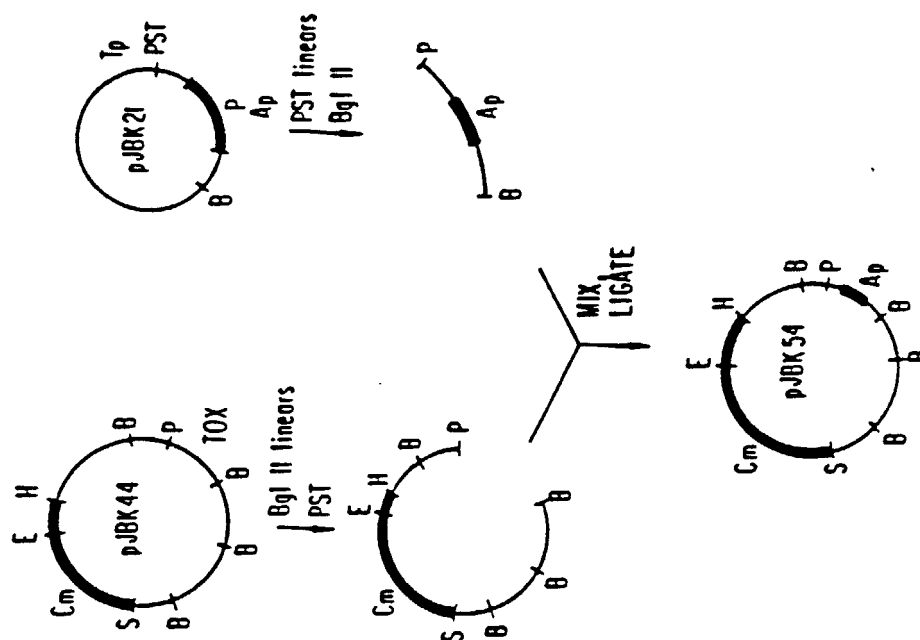
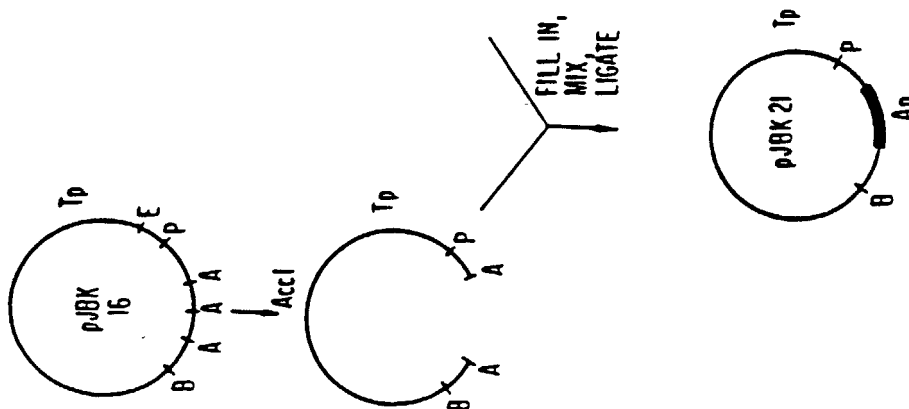


FIG. 4



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FIG. 7

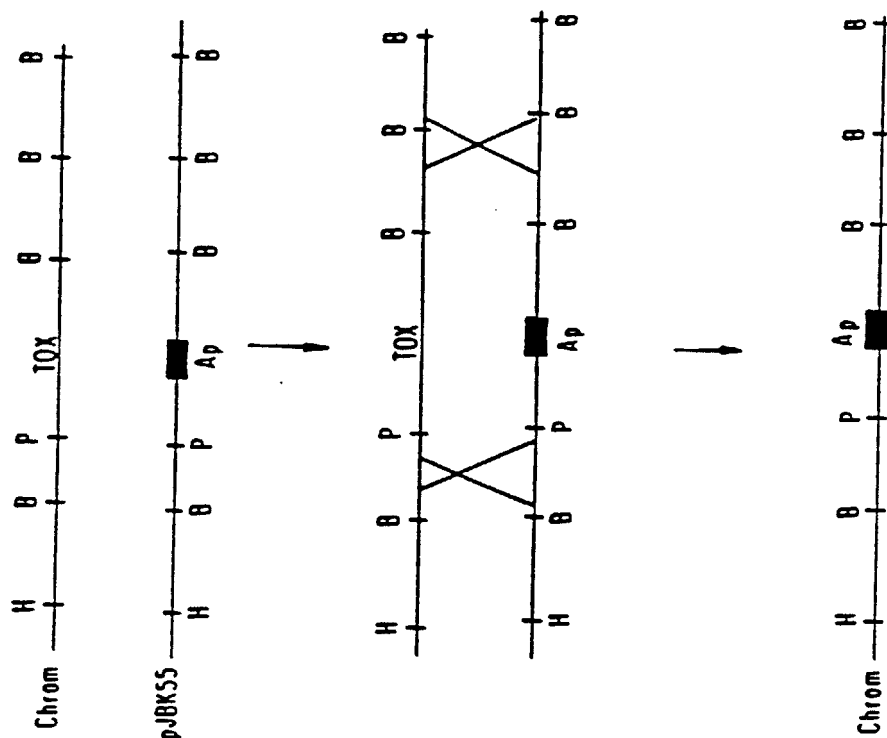
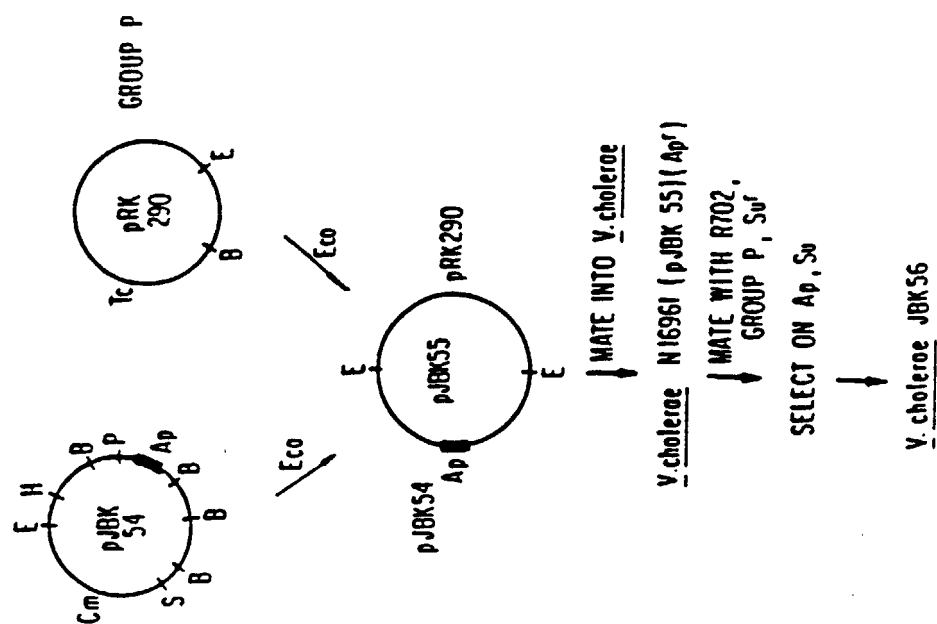
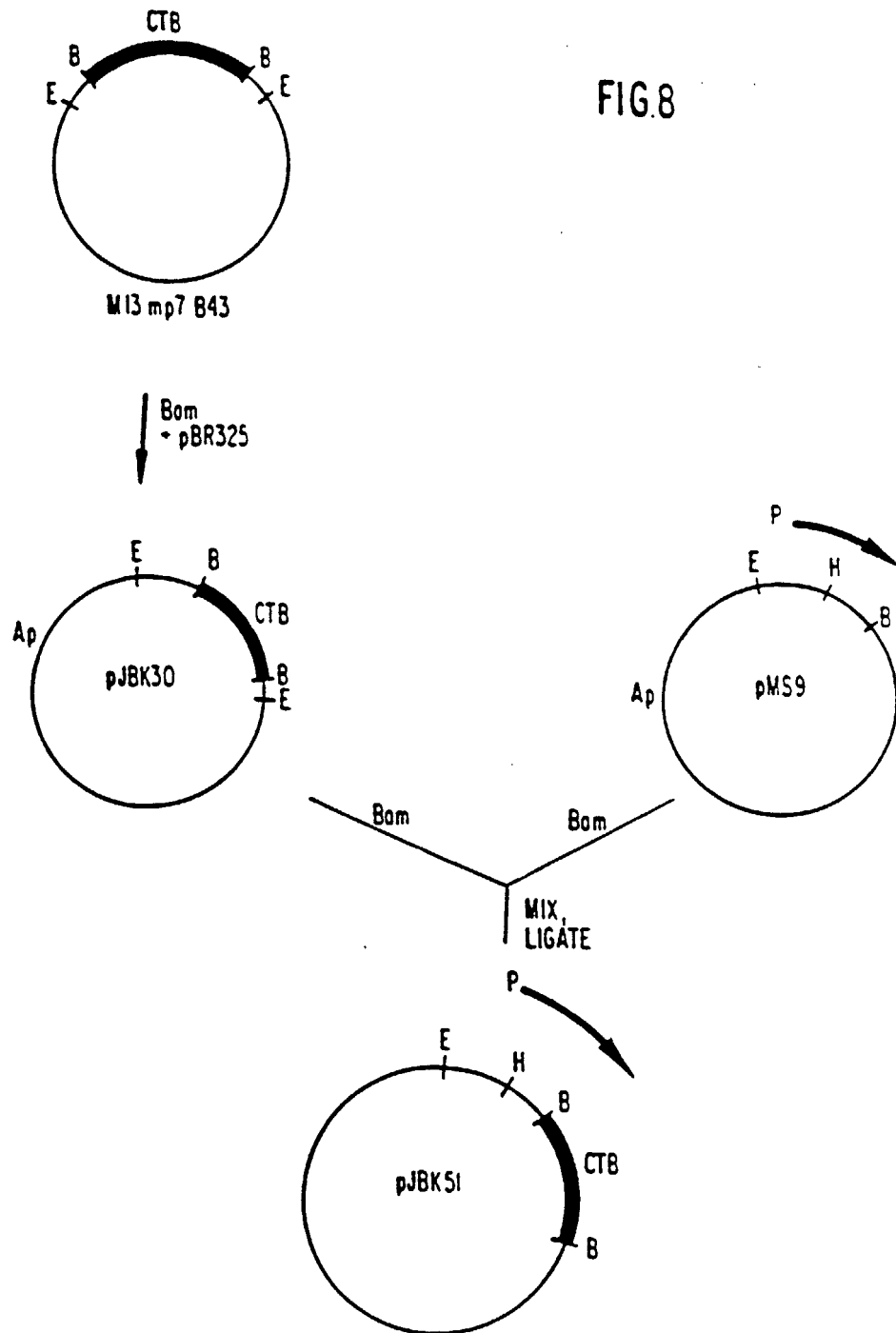


FIG. 6



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FIG 8



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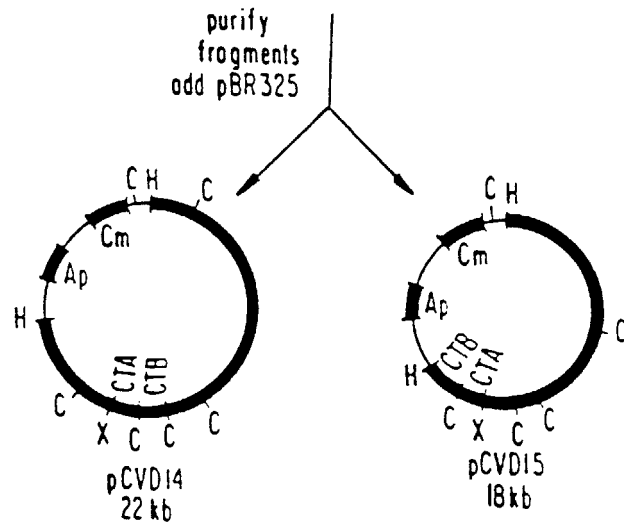
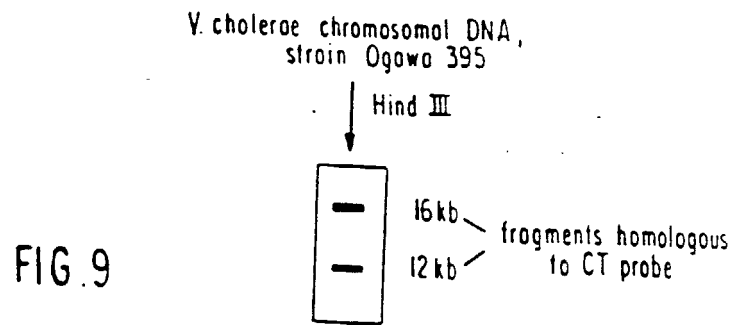


FIG. 10

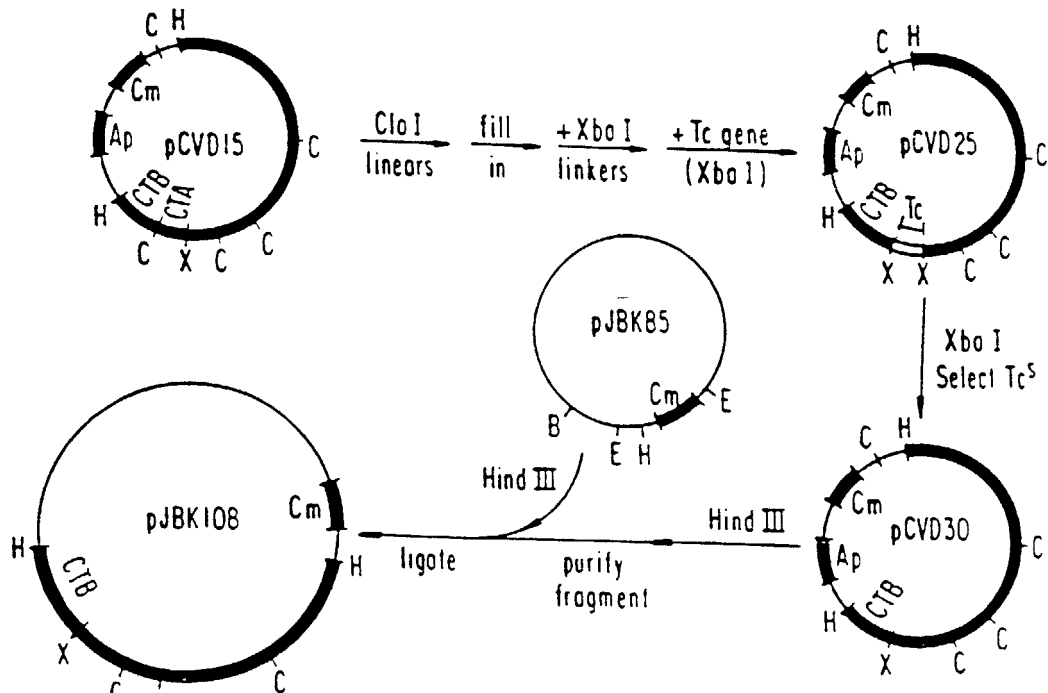


FIG. 11

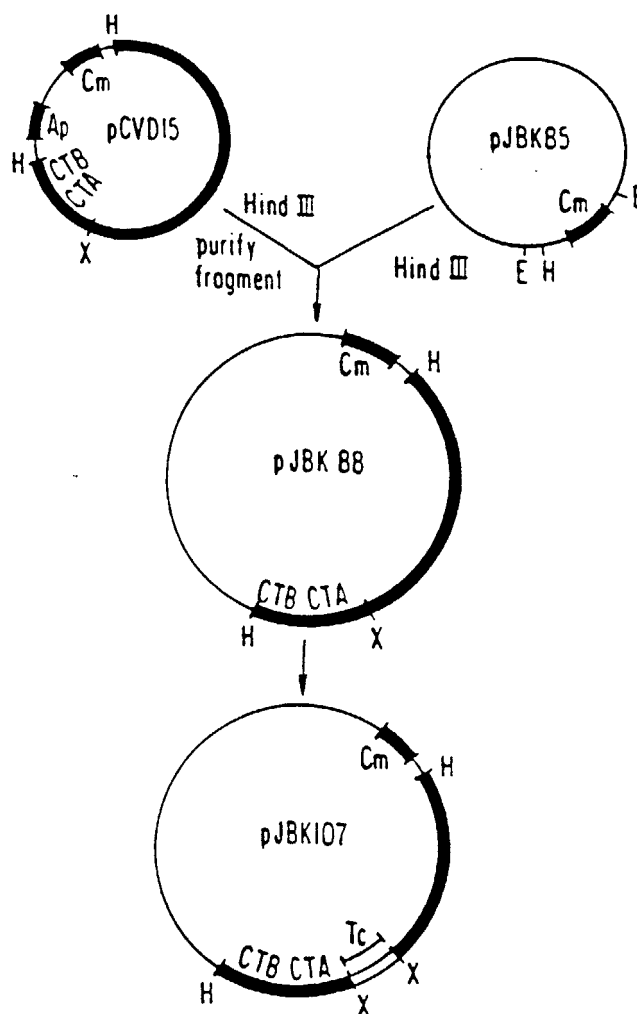
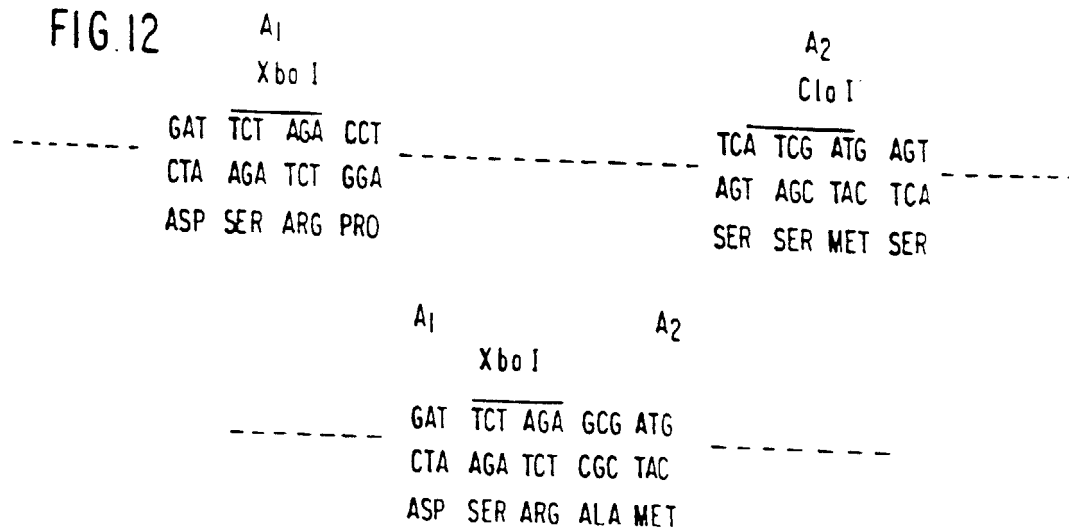


FIG. 12



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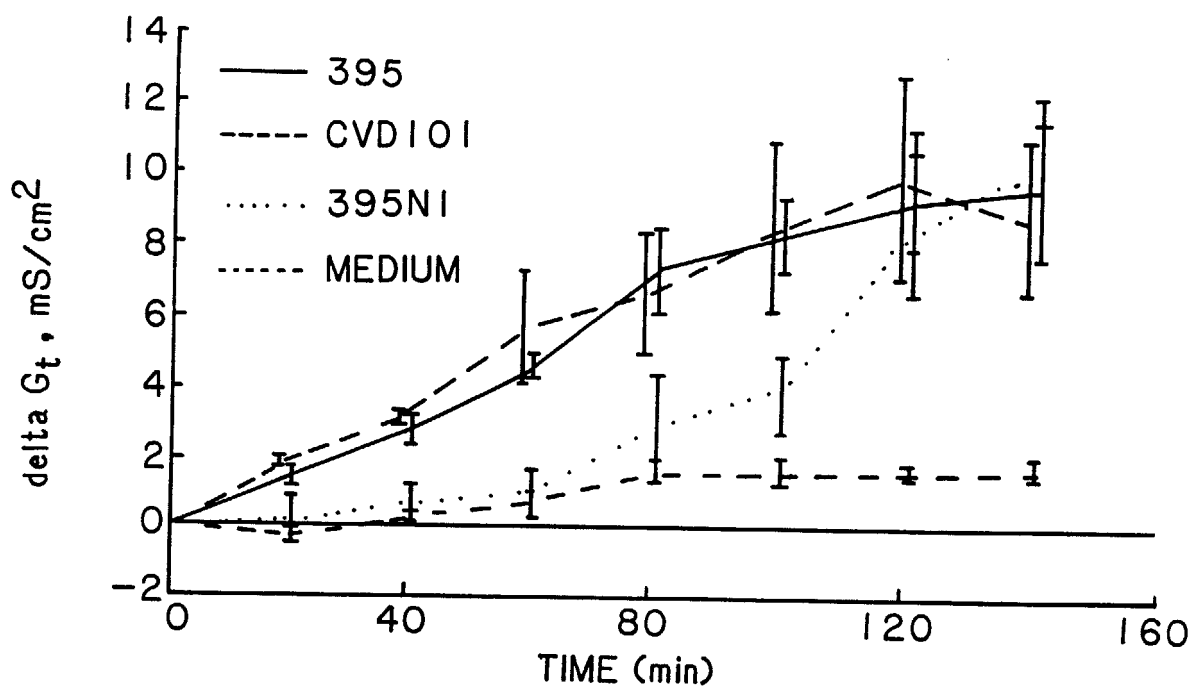


FIG. 13B

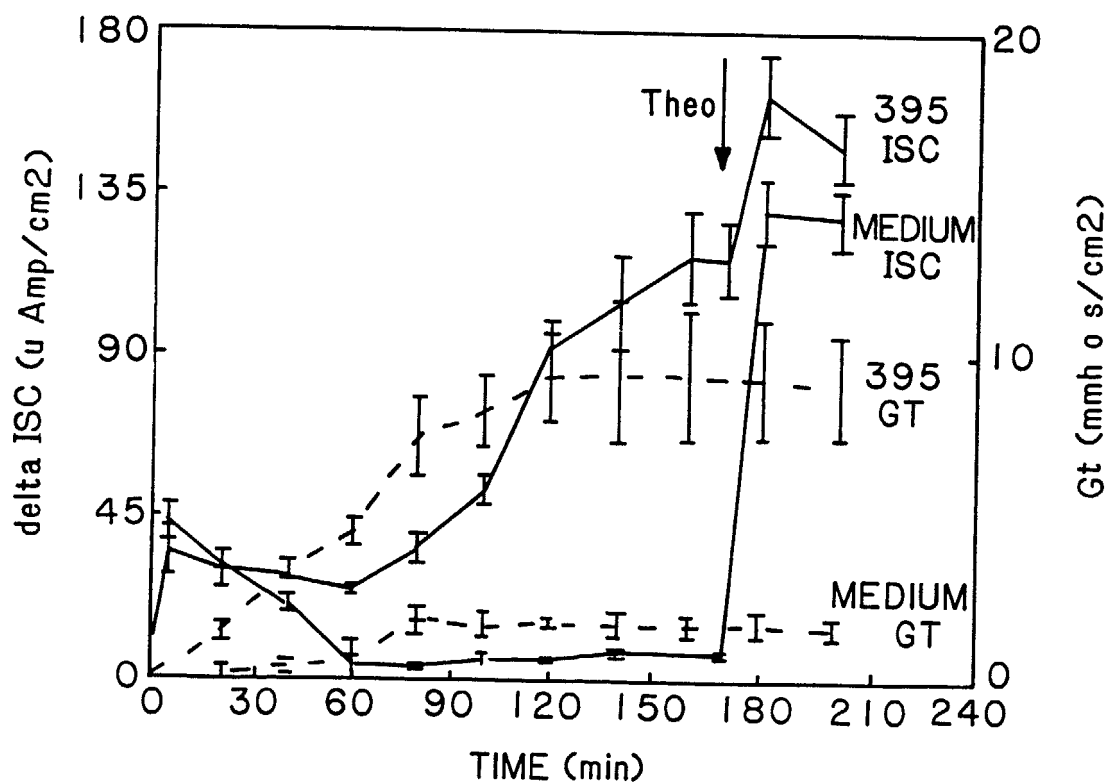


FIG. 13A

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SAMPLE	N	MEAN	S.D.	P
395 MEDIUM	30	244.2	107.9	0.002
	14	373.7	129.0	
CVD101 MEDIUM	32	230.2	75.5	0.004
	30	305.8	96.3	
395NI MEDIUM	31	305.8	80.1	0.322
	31	289.1	83.8	

FIG. 14

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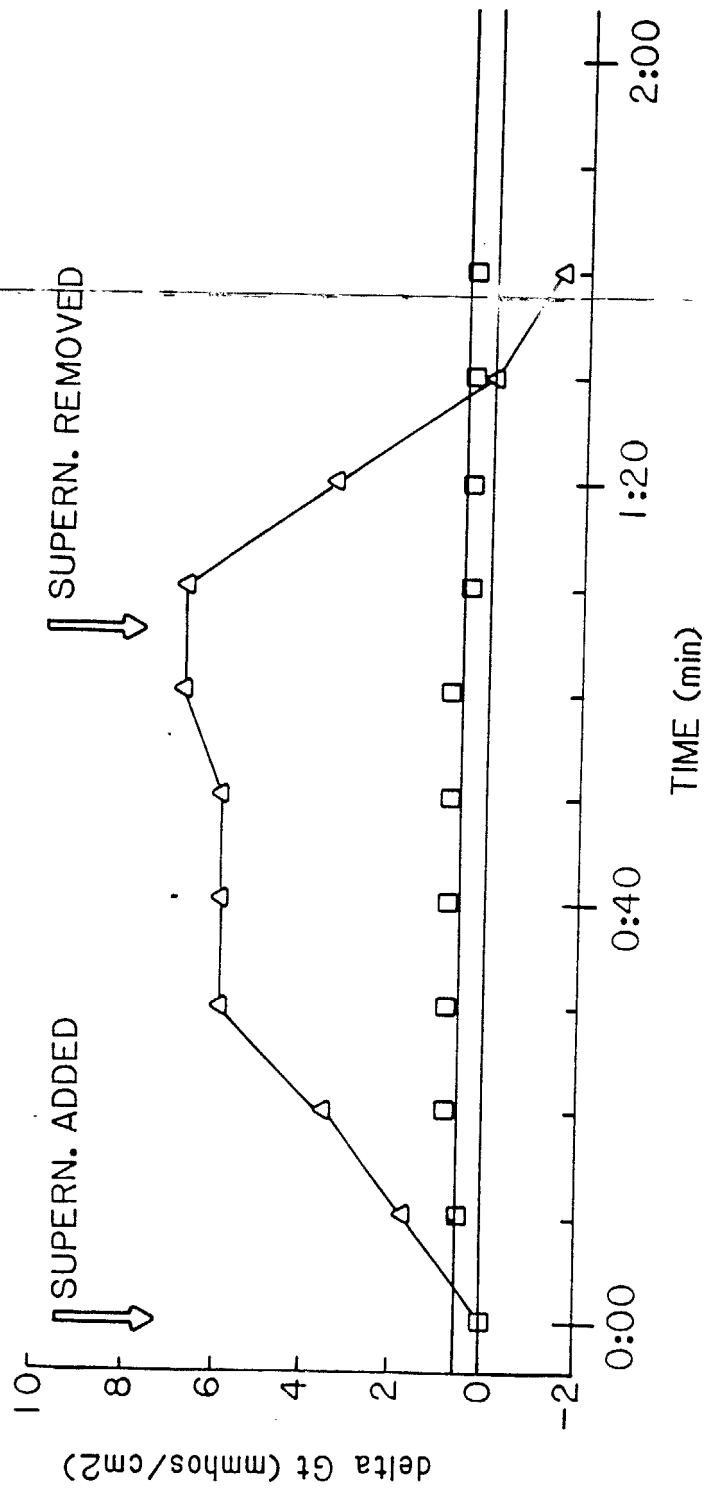


FIG. 15

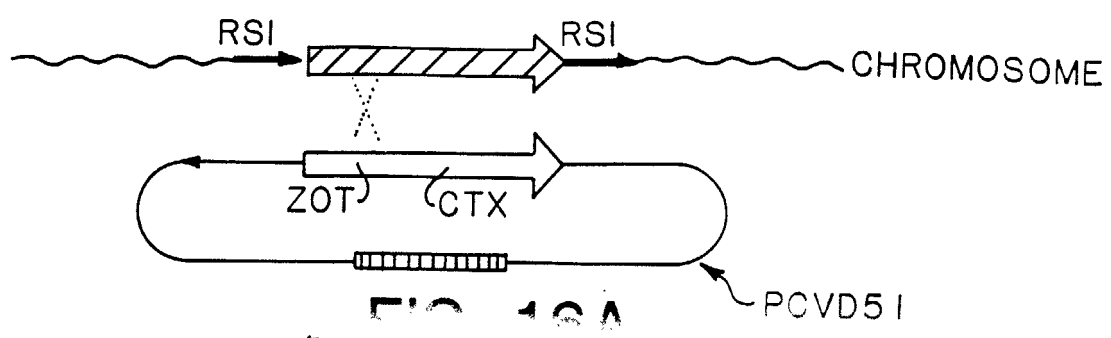


FIG. 16A

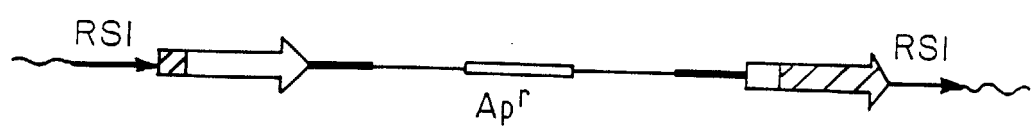


FIG. 16B

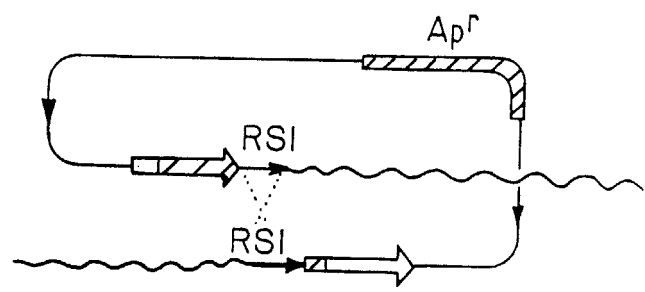


FIG. 16C

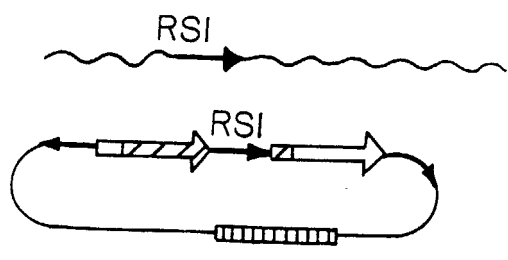


FIG. 16D

1 ATACAGCGGCTTCTGTTCTTTTATAGGGTTAGACCAAGCGCTGGCTATCGTGTCAAGG
TTTGATGACCCGTTTCGCCCTGCGAGCGTTAAACCTATGAGTATCTTTTATTCACGCGC 120
M S I F I H H G
A P G S Y K T S G A L N L R L L P A I K
121 GCGCCAGGCTCTTATAAAACGTCGCGGGCATTATGGCTTCGCTGCTGCGGGCGGATTAAAG
S G R H I I T N V R G L N L E R I A K Y
TCAGGCGGTCACATCATCAGCAATGTGCGAGGCTTAAACCTTGAACGCATAGCTAAGTAC 240
L K M D V S D I S I E F I D T D H P D G
241 TTAAAAATGGACGTCTCAGACATCAGTATCGAGTTTATGATACAGACCATCCAGACGGT
R L T M A R F W H W A R K D A F L F I D
CGCTTAACGATGGCGGTTTTTGGCACCTGGGCGAGAAAGGACGCGTTTCTTTTATTGAT 360
E C G R I N P P R L T A T N L K A L D T
361 GAATGTGTCGCATCTGGCCGCGGAGACTGACGGCCACCAATTTAAAGGCGCTCGACACG
P P D L V A E D R P E S P E V A F D M H
CCGCCGGATTGTGTCGAGAGGATAGGCCTGAGAGCTTTGAGGTCGCTTTTGACATGCA 480
R H H G W D I C L I T P N I A K V H N M
481 CGTCACCAGGCTGGGATATCTGCCTAACCCAGCCCTAACATTTGCCAAAGTGACACACATG
I R E A A E I G Y R H F N R A T V G L G
ATAAGAGAGGCGGAGATAGGCTATCGCCACTTTAACCGCGCCACGGTGGGGCTAGGG 600
A K F T L T I H D A A N S G Q M D S H A
601 GCAAAGTTTACCCCTGACCCACGATGCAGCCCACTCTGGACAGATGGATTGCGACGCG
L T R Q V K K I P S P I F K M Y A S T T
CTGACACGCCCAAGTCAAAAAAATTCCAAGTCCGATTTTAAAGATGTACGCAAGCACCACC 720

FIG. 17A

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721 T G K A R D T M A G T A L W K D R K I L
ACAGGCAAAAGCACGACACGAIGGCCGGAACGGCGCTGIGGAAGACAGAAAGATCCTT
F L F G M V F L M F S Y S F Y G L H D N
TTCTTGTTCCGCATGGTTTTTTTIGATGTCTCTTATTCTGTTTTACGGCTTACACGACAAT 840
P I F T G G N D A T I E S E Q S H P Q S
CCAATTTTACAGGGGGAATGATGCAACTATCGAGTCAGAGCAATCCGAGCCTCAGTCA
841 K A T A G N A V G S K A A A P A S F G F
AAGGCTACTGCTGGGAATGCTGTCGGGAGCAAGGCGGCTGCTCTGCGTCTTTTGGTTTT 960
C I G R L C V Q D G F V T V G D E R Y R
TGTATTGGTCGGCTTTGTGTCCAAGATGTTTTTGTCACCTGTTGGTGATGAGCGTTATCGC
961 L V D N L D I P Y R G L W A T G H H I Y
CTCGTAGACAAATTTGGACATTCCTTATCGTGTCTATGGCGCACAGGTCAATTTTAC
1081 K D T L T V F F E T E S G S V P T E L F
AAGGATACGCTTACAGTGTTTTTTGAACCCGAGAGTGGCAGCGTCCCAACAGAGCTGTTT
A S S Y R Y K V L P L P D F N H F V V F
GCATCGAGCTACCGCTACAAGGIGCTACCGTTACCGGATTTCAATCACCTTTGTGGTTC 1200
D T F A A Q A L W V E V K R G L P I K T
GATACCTTTGCAGCGCAAGCGCTGIGGGTAGAAGTGAACGGGGTTTACQGATAAAACA
E N D K K G L N S I F *
GAAAATGATAAAAAAGGACTAAATAGTATATTTTGAATTTTGAATTTTGAATTT 1320
1321 TTGATTTTGAATTTTGAATTTTGAATTTTCAAAATAACAAATTTTACITATTAAAT
GTTTGTGATCAATTATTTTCTGTAAACAAAGGGAGCATTTATAIGGTA 1428

FIG. 17B

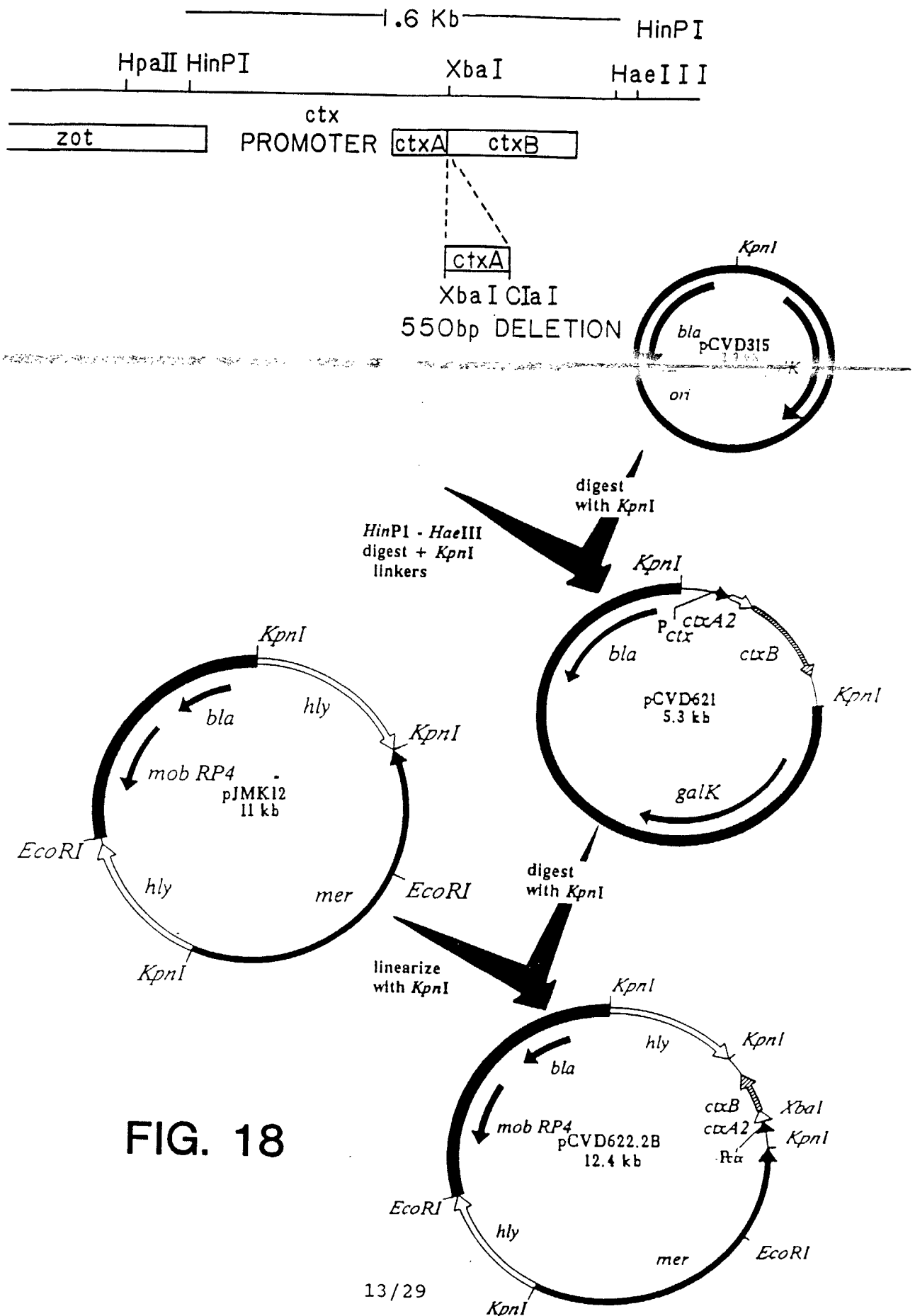


FIG. 18

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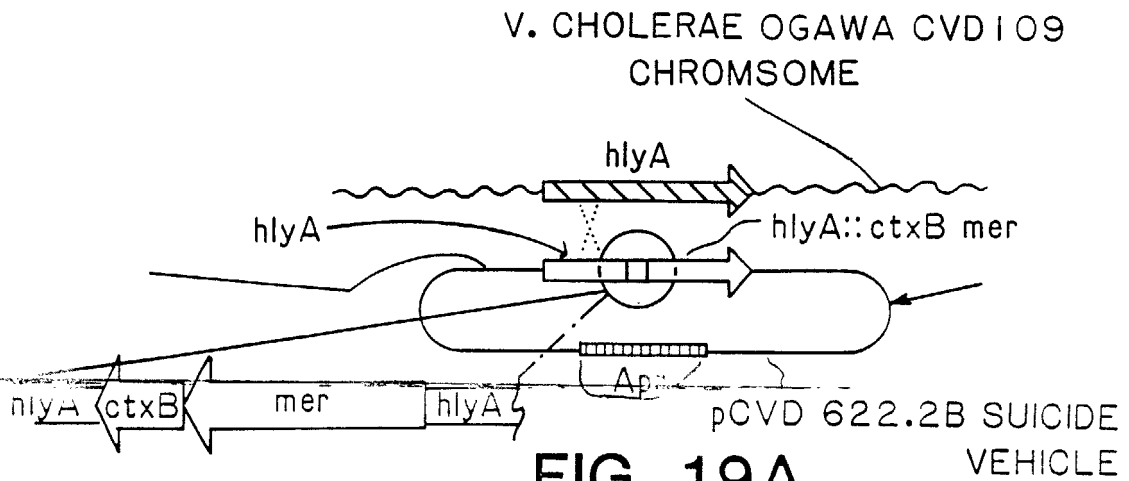


FIG. 19A

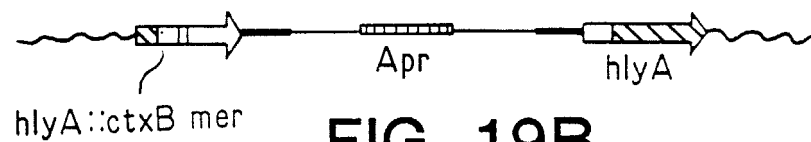


FIG. 19B

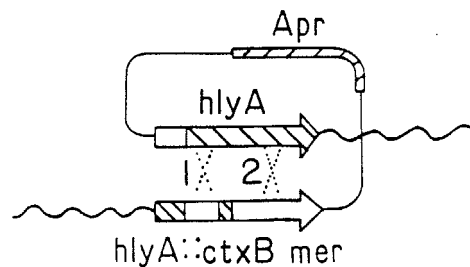


FIG. 19C

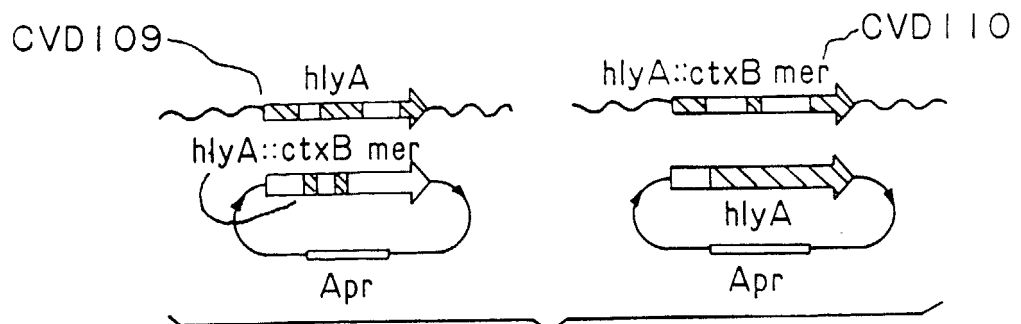
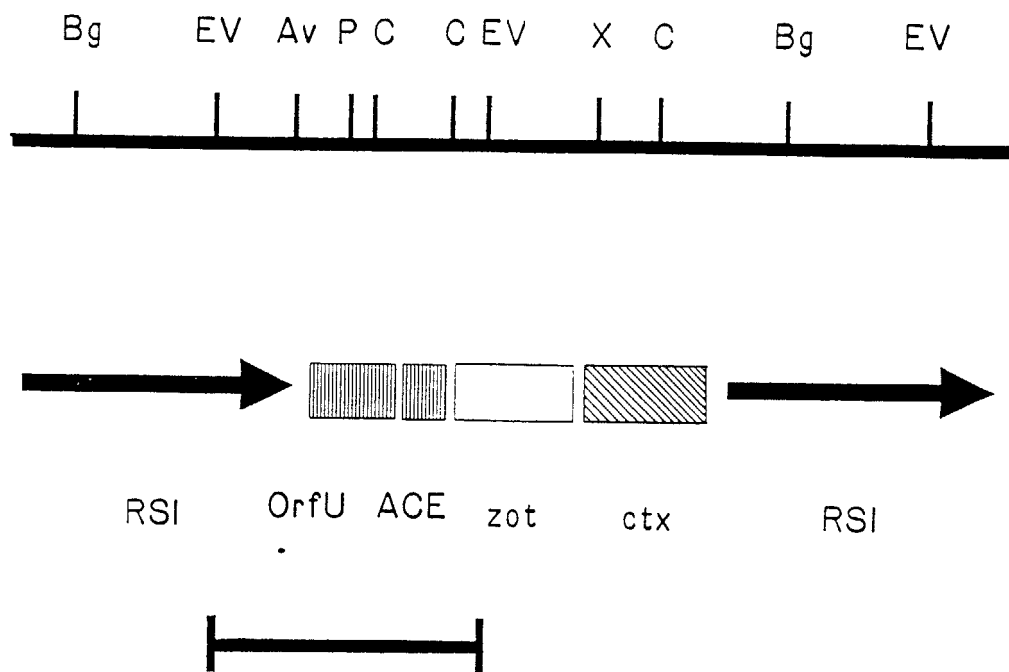


FIG. 19D

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FIG. 20

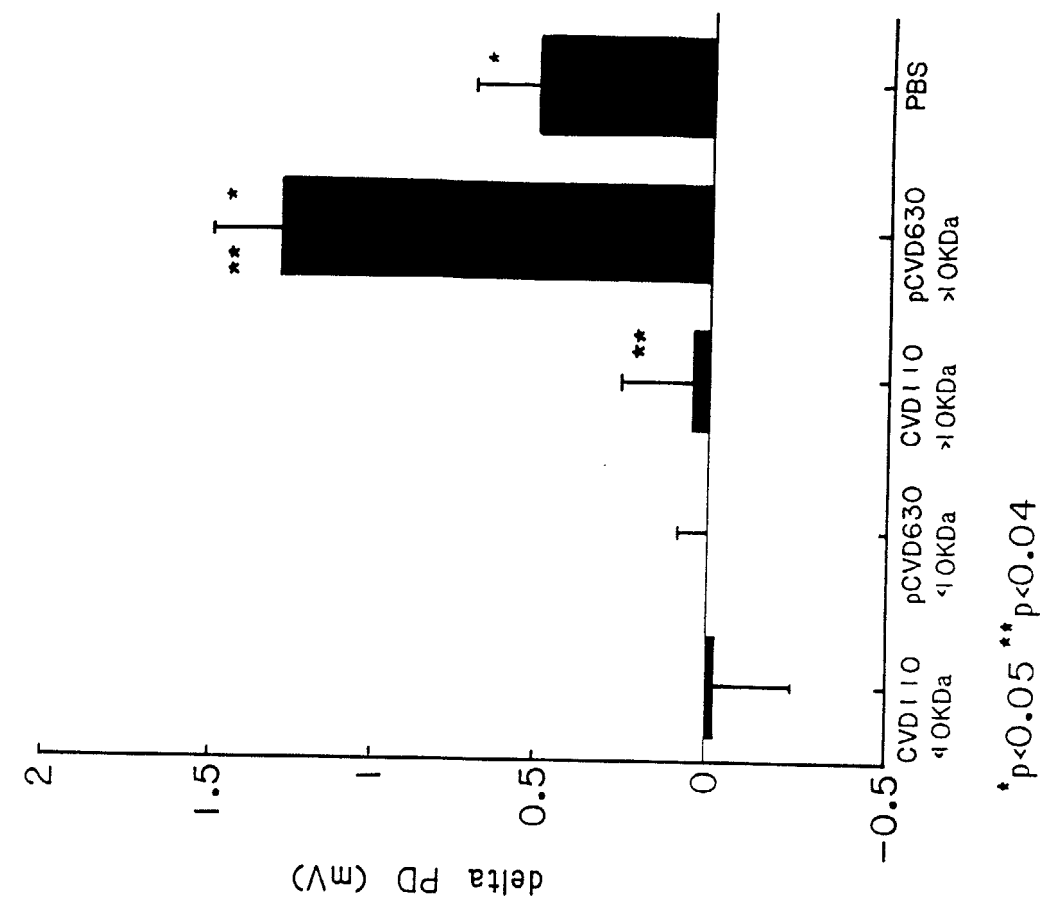


FIG. 21B

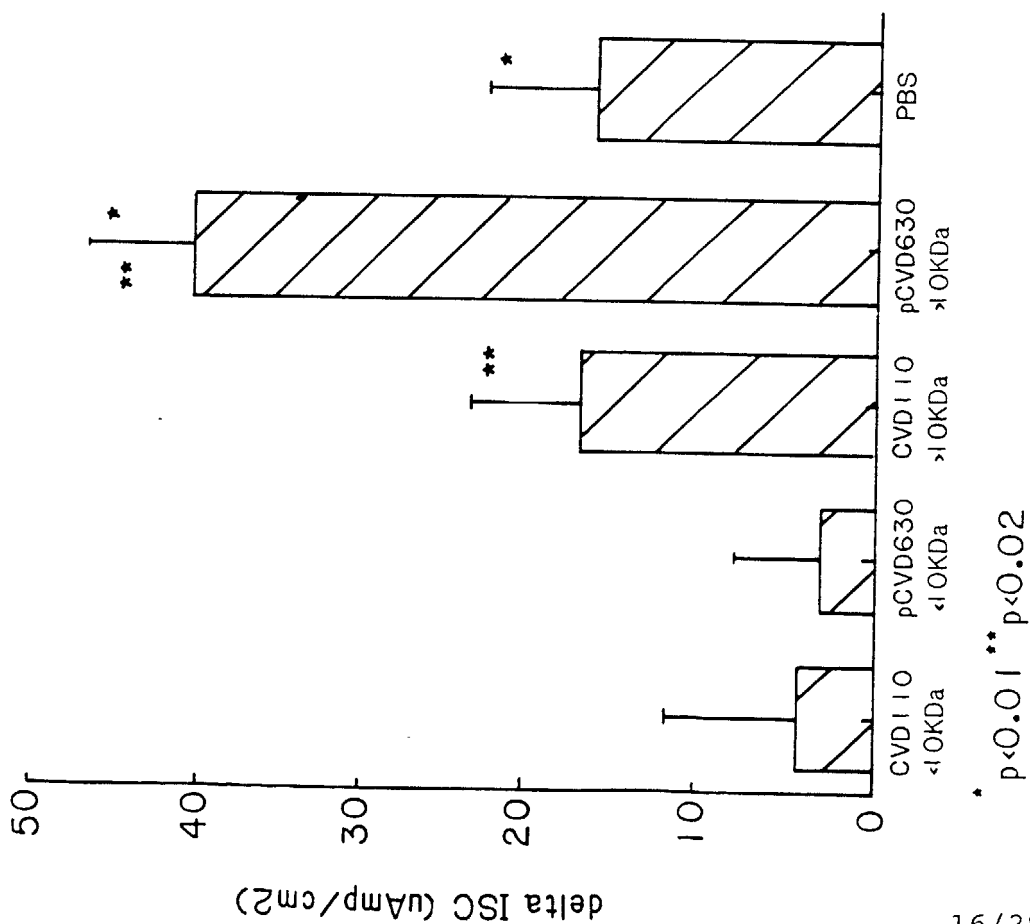


FIG. 21A

1 GATATCCACTCACGCAATTAAAGTGGGCTCGTCGTCAGGTCGGTAAAGACGTTGTTTGATATT
A
61 TCAAAGCATTTTGGTGGTGATTGGAAAGGGTGTTTGGGGCGGTGATTTCTAAGGAAATT 120
121 CACGACGATTCACTCAACCTTCCAGATTCTTATATGAAGTTAATTGATGAAATTATGGGT 180
181 GATTAATATGAAATCTCGTTTGTGTTTGGTGCCCTCTCATTTTGAAGGGGTG---AG
AGT
241 TAAGACTGGTGCTCCTTACCTTATCCCCAGTGCCTTTTGTGGTAAGCCGATTCCGCCAGTG 300
A T
301 GAAAAACGATAAAGGCCAATGTTTGACGTTTGGCTTGCAGCATCAGGAAGTGAAATTGT 360
361 ATCCAGTTGACGGGATGACGACAGAAAACTCGAACACAGACCGCCCTTTCCGGTTCCTTGTACGTT 420
421 TGACAAATGAGCCAGACCCAGAACACCCATCGCGTAACCTCGTGAATTGATTATCAAGTGGT 480
A C
481 GTGTTCCTTGTGACAAACGTGCCGGGGCGCAAGCCATTGGATAAAACCTCAACCCATTAAA 540
541 TCTTGATGGACTTAACCCATTATGTCTGGAGCGAGCGGCTCTATTTCGCGGTGGTCAAG 600
A

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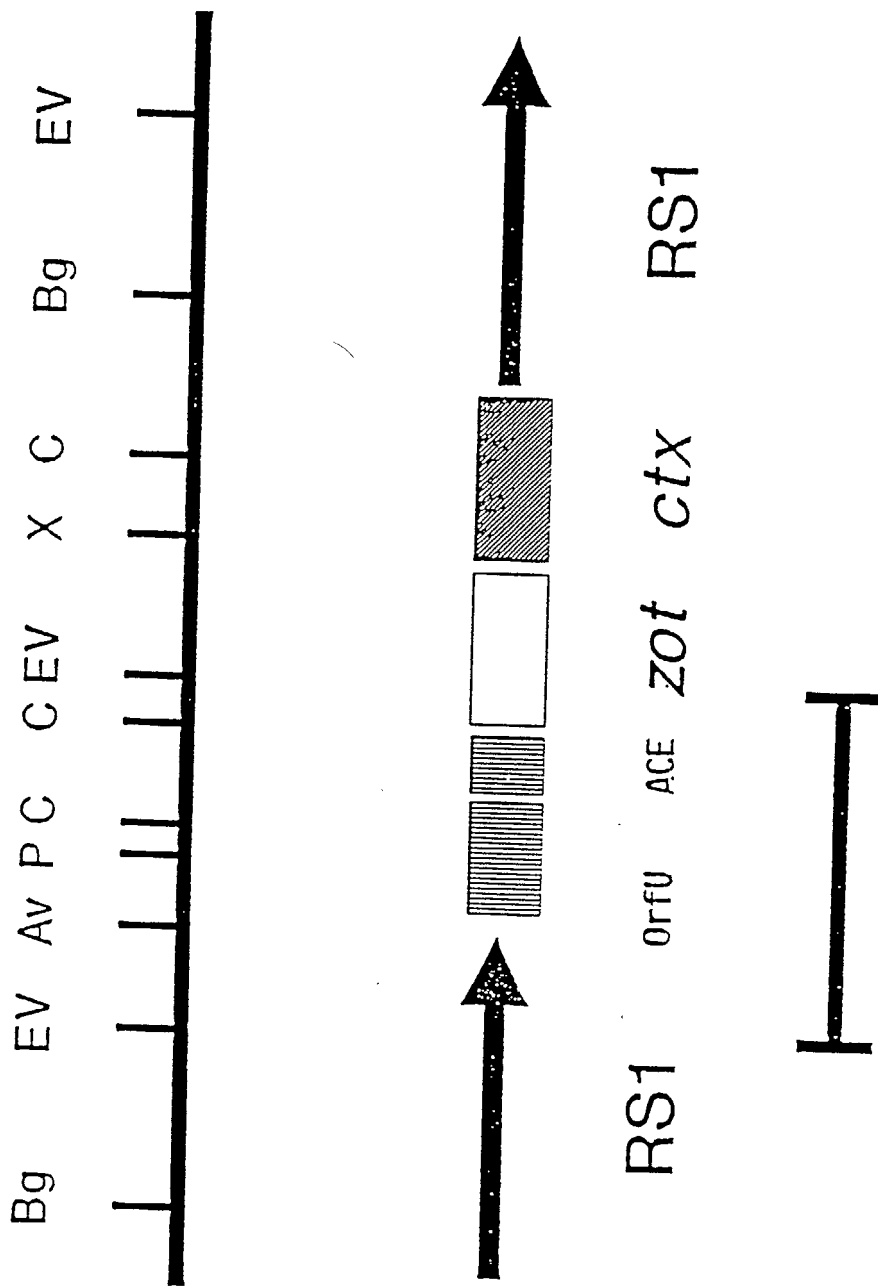
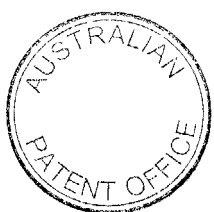


Figure 21, Page 4

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6121 CCGATTTATCATCCAGCTGCTTCGGTCAATATCCGCGCAATCTATACGGTGGCTTATAGCACTAGTATGTCGGTGGCTCATCATTCCTACCATGGCTTTTCAGAGATAGCCACGCTGCTC 6240
 6241 GAATCAGCAATTCGGCAAGCTTTACGGTGCATTTCGGCATCAACCCAGTATTACGGGTGGCGCCCGCTACCACTTCGCAAGCTTTAACACACCGCTGTATTTCAGTCCATGCTCAGC 6360
 6361 GTCCGTTGGCGCCATACGTCCCATAGCCATAGCCATCAAGGCGCATCGTTTCATCTATGTCATGCTTGGTTCGATATGTCAGTGGAGTAAACACCAAGCTCTCTCTTGTATGGTGAGCCATTAG 6480
 6481 AGGCATTGCCAACCTGTAAACCAGAAACCTGACTCAGCGTTGGGAGTGGCGTAAAGGCACAGATGAAATTGACCAATGCTCTACAGCGCGCGAGTCCCTTGGACATGACACAAACACCGGCTGAGC 6600
 6601 TTGCTTTGTATCGGAGCGCAGCAACCATGGGTAAAGTTACGTACCATACCGCTTATACCGATGTGCTTTAATGCCCAAGAAAGTTGCCCGATTCTCGGCTTACACACAGGCAAAATCAATC 6720
 6721 AGCAGCGTCTCGGACACAGATCATCGTTTGTATGTCCGAGCGGGTGGTCCCAATTGATGCAATTAGGGTCCGCTCCGCTATTTATTGGTTGGTGGCAATGGTGTAGCTTTCAGTTGCTGCAATC 6840
 6841 TGTCCGGGCTTAATTCATCATCAGCAACCTCTCTGCTGATTTCCAAATATCGCGCTCAGCAGTTGCTGGCGGTACACATTCACCTACCAAGCATGCAAGCTTACCAAAAGGTAAGCTTCCAAAGCGCT 6960
 6961 ATCTACCAATGGCTCATCAAGACCGTTTCGATTTACCGGCTCCCGCTAAGCATCACTCACTGCAATTTGGTCTGACCGATTGCTTGGTGAAGGGGTTCAATTTTCATTTCAAGCTAA 7076

30388 79714
Figure 22



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2161 I R M T V L A M A Y I L A A M L I L F R
CATCCGCATCATAGTGGCTGGGATGGCTTACATTCCTGGCCGCCCATGGCTCATTTTGTGTAG 2220

2221 M L M M D P L Y D W L L D G F T W L V
GTGATGCTTATGATGGACCCCTTTATGACTGGCTAATTGATGGCTTTACGTGGCTTGTG 2280
A

2281 I K L G I M W I E S K I F V I Q F F W E
ATCAAGCTCGGTATTATGTGGATTGAGAGCAAGATTTTGTCAATCCAATTTCTTCTGGGAG 2340
T

2341 M S Q K V I D M F T I Y P L I Q Q A I D
ATGTCCAGAAAGTGATGATATGTTACCATCTATCCGCTTATCCAAACAGGCTATCGAT 2400

2401 M L S P Q Y S G F L F L G L D Q A L A
ATGCTGTCTCCTCAATACAGCGGCTTTCTGTCTTTTATAGGGTTAGACCAAGCGCTGGCT 2460
C

2461 I V L Q A L M T R F A L R A L N L
ATCGTGCCTTCAGGCTTTGATGACCGCTTTCCGCCCTGGGAGCGTTTAAACCTTATGAGTATCT 2520
T

2521 TTATTCATCAGGCGGCCAGGCTCTTATAAAACGTCCGGGGCATTTATGGCTTCGTCTGC 2580
A

2581 TGCCGGCGATTAAAGTCAGGCGGTCACATCATCACGAATGTGCGAGGCTTAAACCTGAAC 2640

2641 GATAGCTAAGTACTTAAAAATGGACGCTTCAGACATCAGTATCGAGTTTATTGATACAG 2700
G

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2701 ACCATCCAGACGGTCGGCTTAACGATGGCGCGTTTGTGGCACTGGGGCGAGAAAGGACGCGT 2760
T
2761 TTCTCTTTATTTGATGAATGTGGTCGCACTCTGGCCGCCGAGACTGACGGGCCACCAATTAA 2820
C
2821 AGGCGCTCGACACGCGCCCGGATTGTGTCGCAGAGGATAGGCCCTGAGAGCTTTGAGGTGG 2880
2881 CTTTGTGACATGCATCGTCACACGGCTGGGATATC 2915

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601 CCGTTCTCGTTCTGTTCTTTACATCCCTTTGGGATTGGCGCGGTTGCCAGTCTCATTTTAT 660
 T
 661 CCACGGTAAAGGAGAGCTACAT'GTTAGCTCAC'TGAAANAACAAC'TTAATACCTTTAAA 720
 721 AGCACCCCTTTCACCTCGGGGTTTCTTGCTGTTTTCCTCGCATTTGCTAACCAAGCACTCGCG 780
 G
 781 GCTGCTGATACGGGTTTGGTCGCGGAAGTCAACCAAAACACTGGGCACCAAGTAAAGATACG 840
 G A
 841 GTGATTGCGCTTGGGCGCTTATCATGGGCGTGGTGGGAGCAATTGTTCTGATTGTTACC 900
 C G
 901 GTGATTGGCTTAATTCGTAAGGCTAAATAGTCTTGAGTTGTGGCTGGGCTCTCTTTGGCT 960
 961 CAGCGGTCAATCATTCGGCTTTGTGTCGGGCTTATATTGTTAAGGAGGAGGGCGA 1020
 M R Y F L L F L T L L F L S P
 1021 GCGTTCGCCCTTTTATGCGCTATTTTCTACTGTTTGTGACATTTGCTCTTCTTCTCC 1080
 S V T A S S I N C D P N T T T S H Q L L
 1081 ATCGGTAACAGCTTCCCTCCATCAAT'GTGATCCTAATACTAC'TACGTACACACAGTTACT 1140
 G G
 F G F G S P I V Q S V L F D G C M L D I
 1141 TTTCGGTTTTTGGCTCTCCCATTTGTGCAATCGGTGTTATTTGATGGCTGCATGCTTGATAT 1200

Figure 24, Page 2



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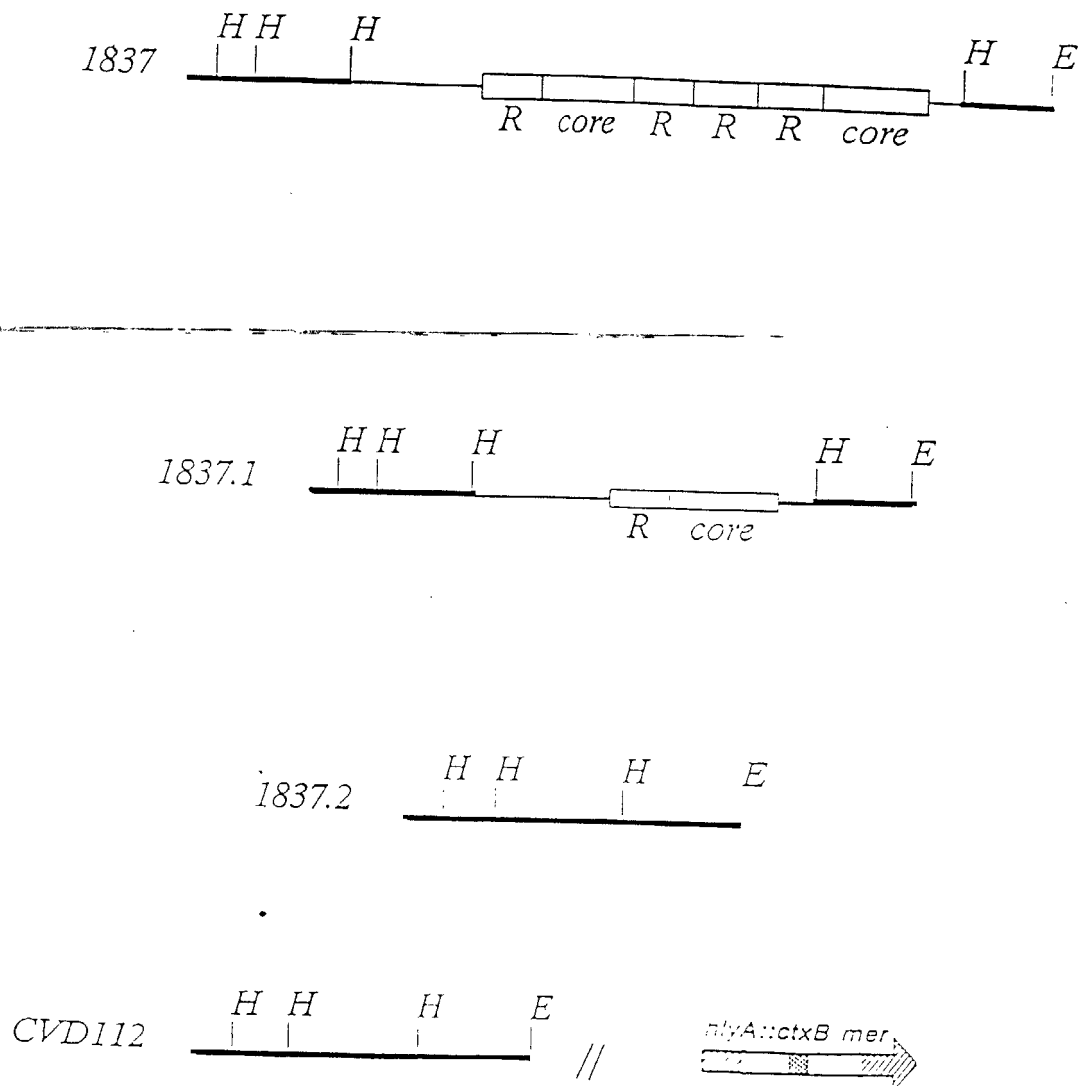


FIG. 24

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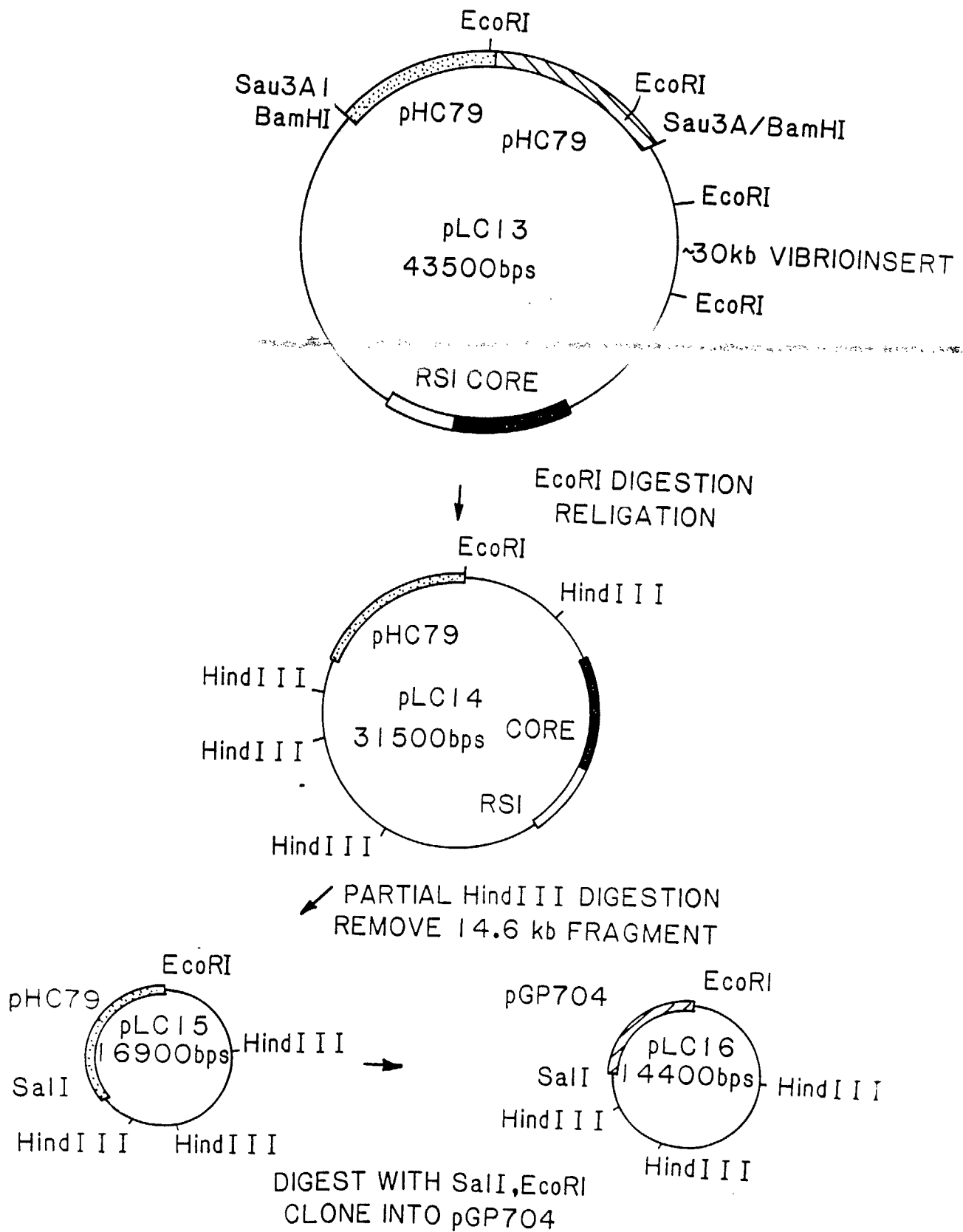
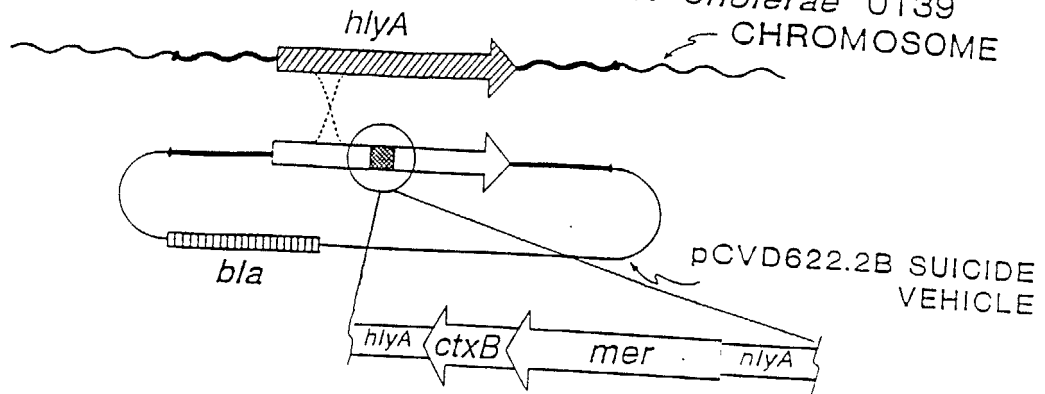


FIG. 25

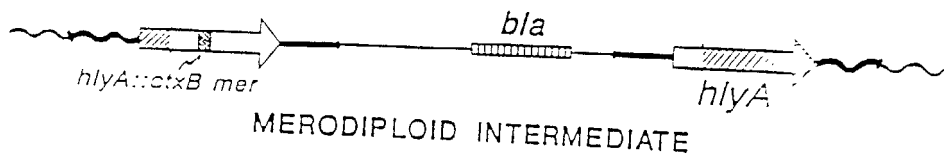
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V. cholerae 0139
CHROMOSOME

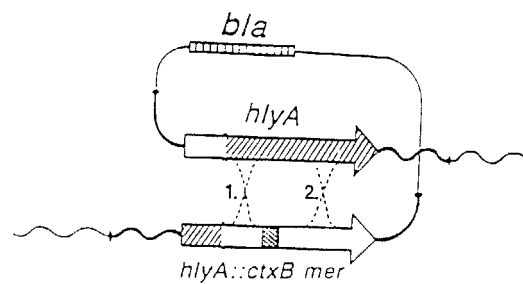
A.



B.



C.



D.
1837.2

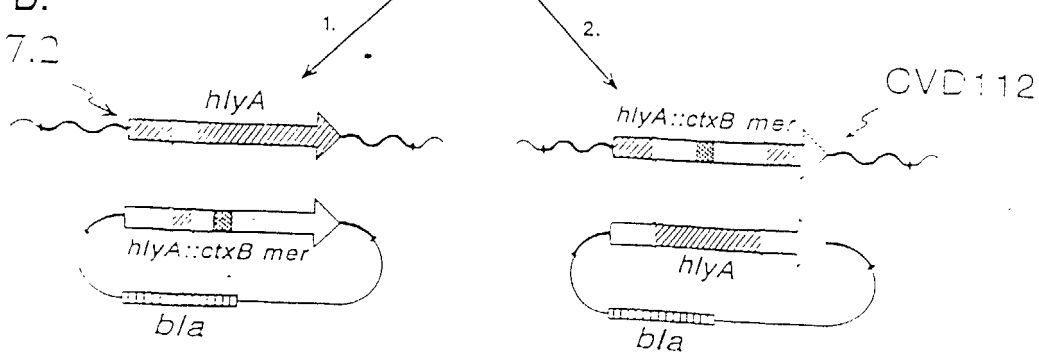


FIG. 26

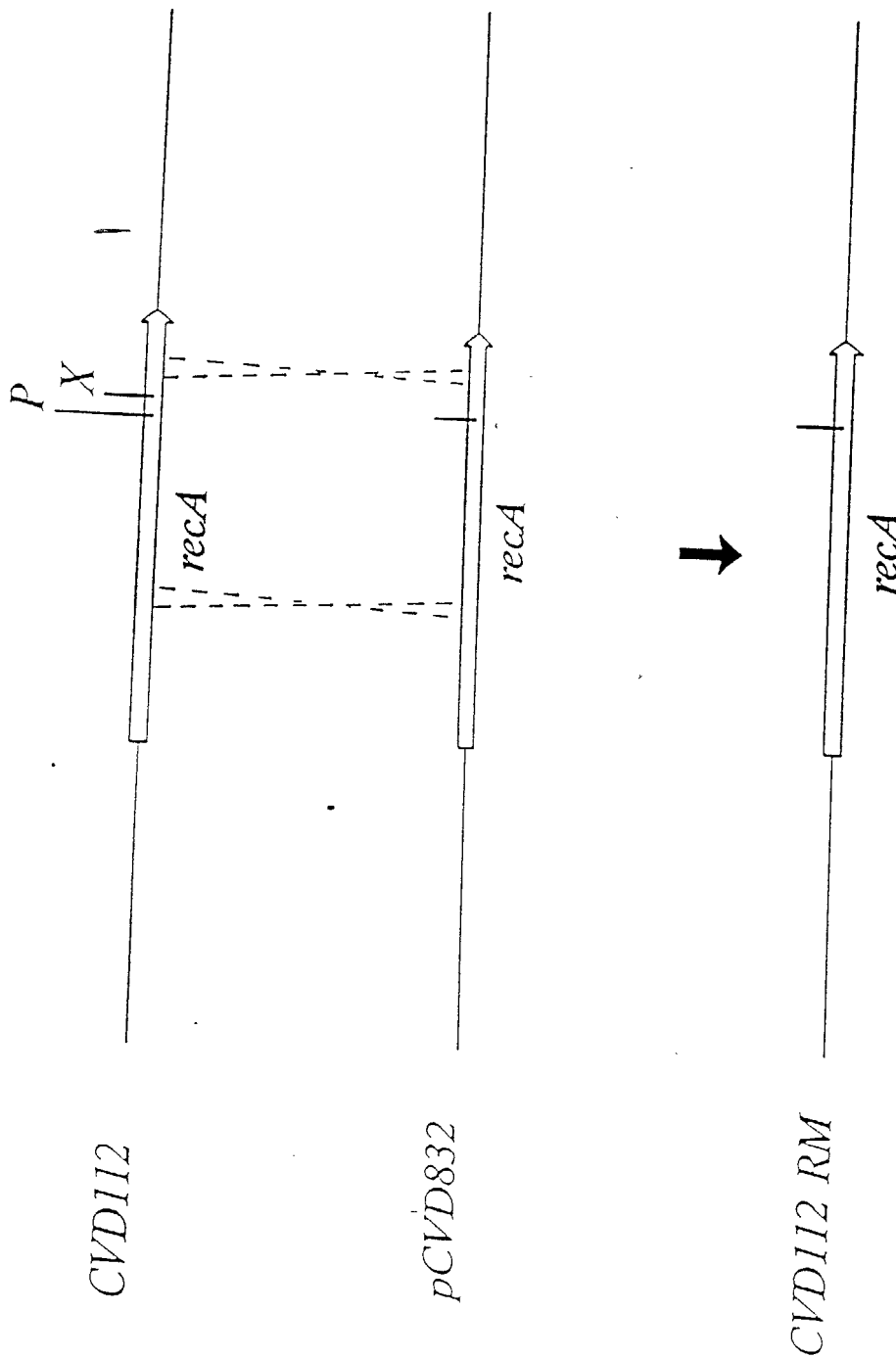


FIG. 27

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FIG. 28A

FIG. 28B



FIG. 28C

FIG. 28D

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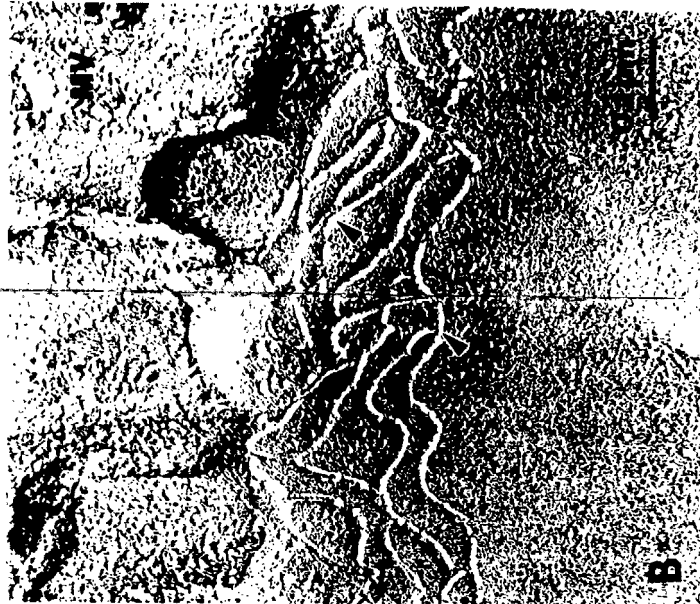


FIG. 29B

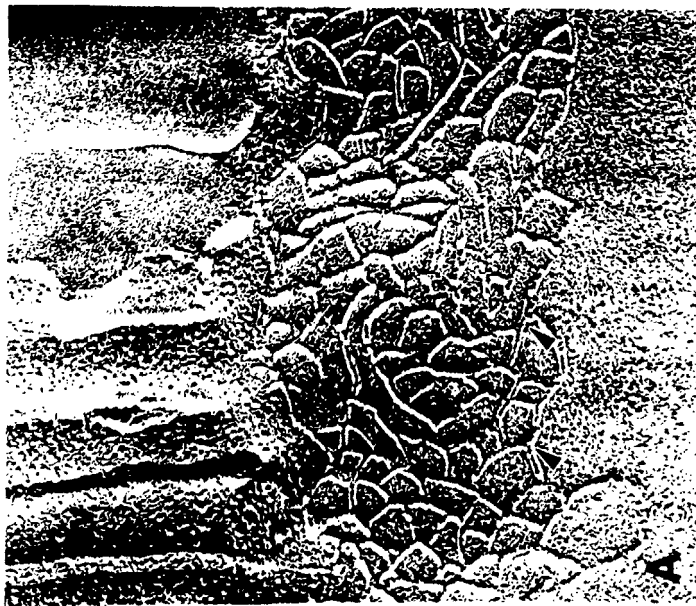


FIG. 29A