

FIGURE 1

SEQ ID NO. 14

M-VIP ELP1-120 (M added to N terminus of VIP)

MHSDAVFTDNYTRLRKOMAVKKYLSILN

VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGWP (SEQ ID NO: 14)

ELP1-120 = (VPGXG)₁₂₀ where X = V₅G₃A₂

FIGURE 2

SEQ ID NO. 15

MAA-VIP ELP1-120 (before processing, MAA added to N terminus of VIP)

MAAHSDAVFTDNYTRLRKOMAVKKYLSILN

VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
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 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGVG VPGVG VPGGG VPGAG VPGVG VPGVG VPGVG VPGGG VPGAG VPGGG
 VPGWP (SEQ ID NO: 15)

ELP1-120 = (VPGXG)₁₂₀ where X = V₅G₃A₂

FIGURE 3

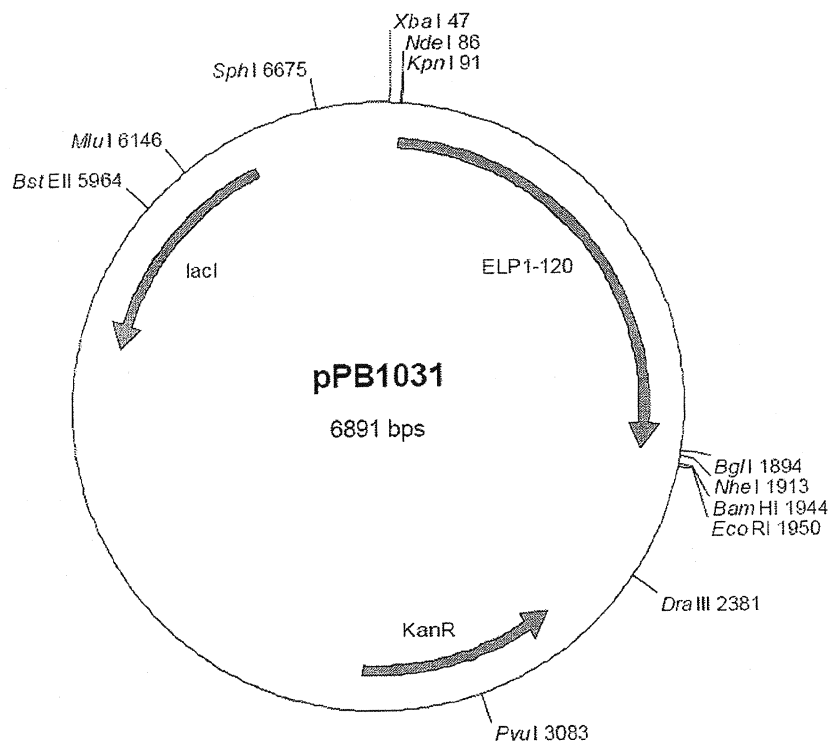


FIGURE 4

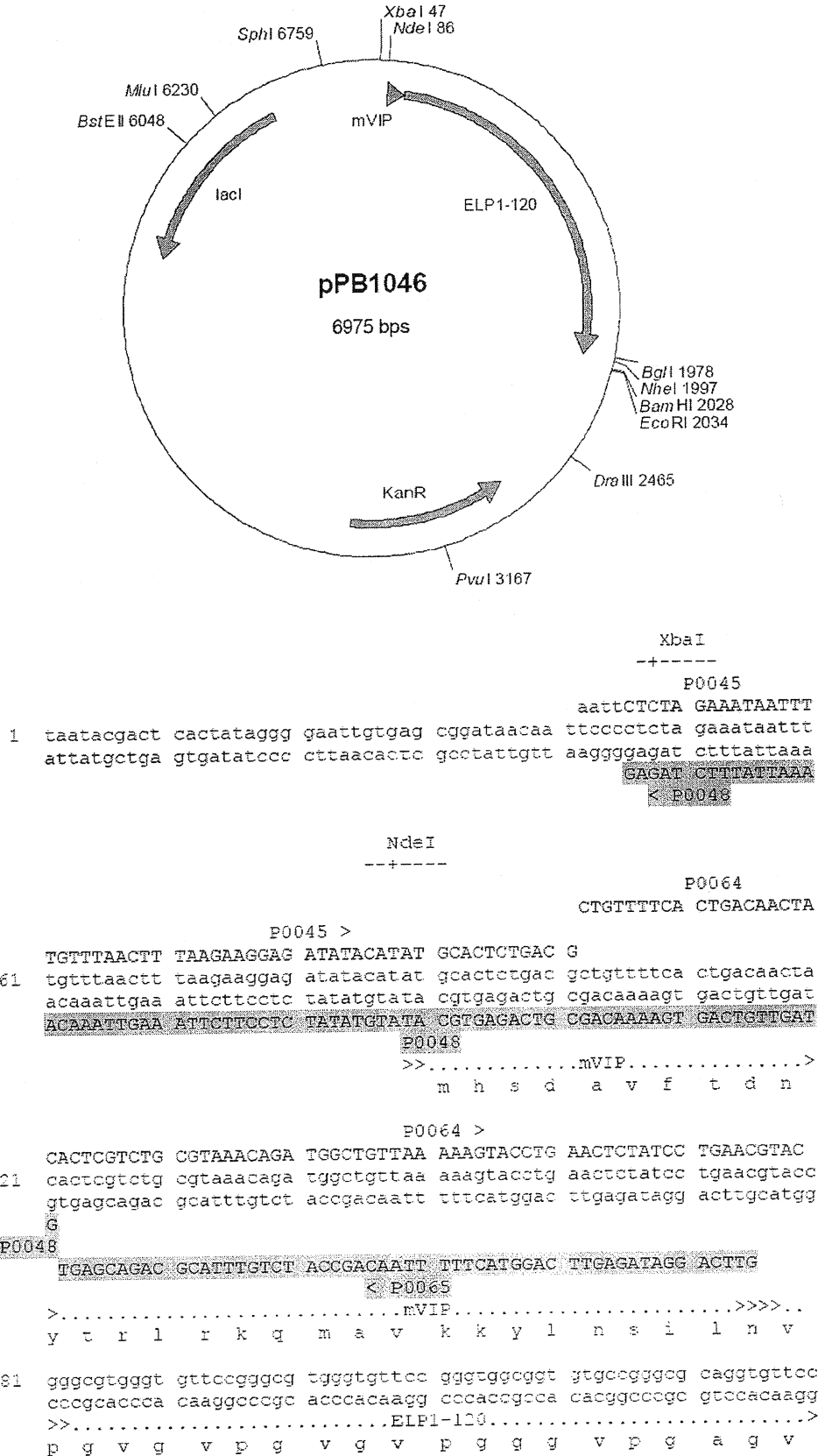
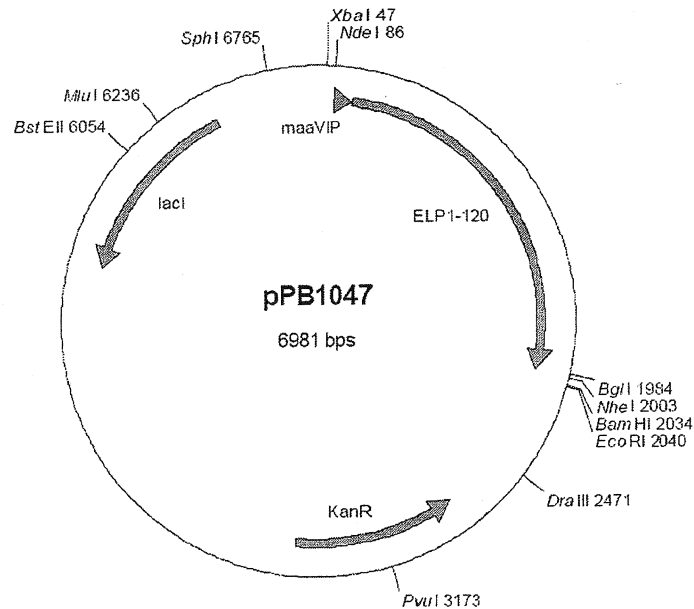


FIGURE 5



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+-----
P0066
CTA GAATAATTT
1 taatacgact cactataggg gaattgtgag cggataacaa ttccctctta gaaataattt
attatgctga gtgatatccc cttaacactc gccattgtt aaggggagat ctttattaaa
TTTATTAAA
< P0067

NdeI
---+-----

P0064
CTG TTTTCACTGA

P0066 >
TGTTTAACTT TAAGAAGGAG ATATACATAT GCGGCCCCAC TCTGACG
61 tgtttaacct taagaaggag atatacatat ggcggcccac tctgacgctg ttttcaactga
acaaattgaa attcttcttc tatatgtata cgcgcgggtg agactgcgac aaaagtgcact
ACAAATTGAA ATTCTTCTCT TATATGTATA CCGCGGGGTG AGACTGCGAC AAAAGTGACT
P0067
>>.....mVIP.....>
m a a h s d a v f t

P0064
CAACTACACT CGTCTGCGTA AACAGATGGC TGTAAAAAG TACCTGAACT CTATCCTGAA
121 caactacact cgtctgcgta aacagatggc tgttaaaaag tacctgaact ctatcctgaa
gttgatgtga gcagacgcac ttgtctaccg acaatttttc atggacttga gataggactt
CTTGATG
P0067
TGA GCAGACGCAT TTGTCTACCG ACAATTTTTC ATGGACTTGA GATAGGACTT
< P0065
>.....mVIP.....>
d n y t r l r k q m a v k k y l n s i l

P0065
G
P0064 >
CGTAC
181 cgtacccggc gtgggtgttc cggcggtggg tgttcggggt gggtgtgtgc cgggcgcagg
gcattggccg caccacaaag gcccgcaacc acaaggccca cggccacacg gcccggtcc
> mVIP
n
>>.....ELP1-120.....>
v p g v g v p g v g v p g g g v p g a

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FIGURE 6

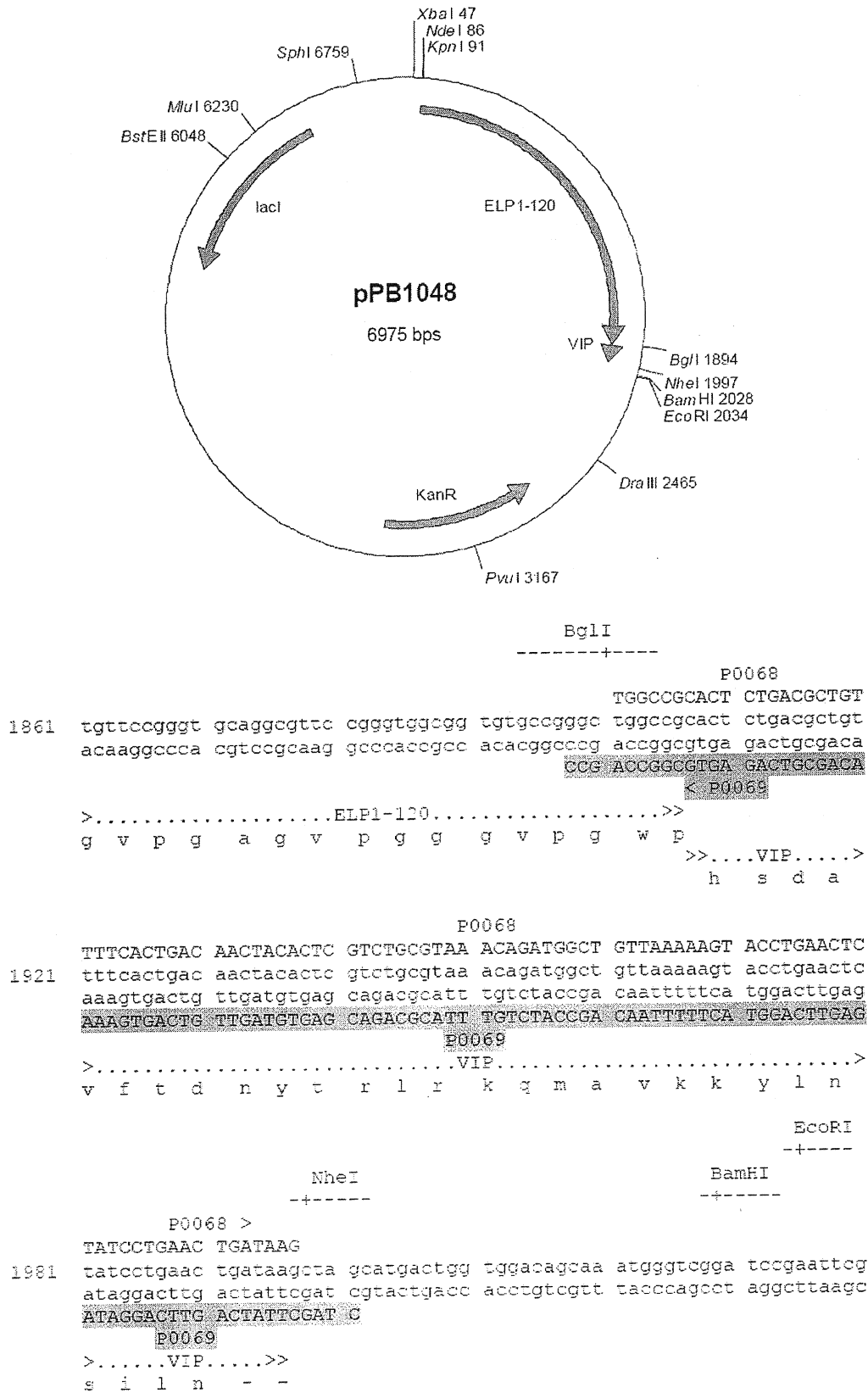
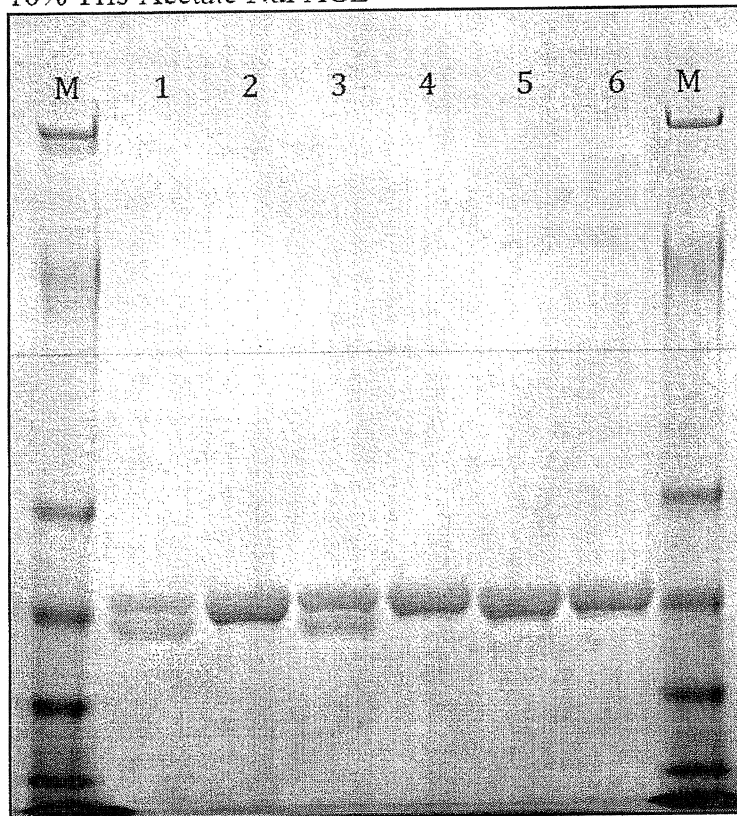


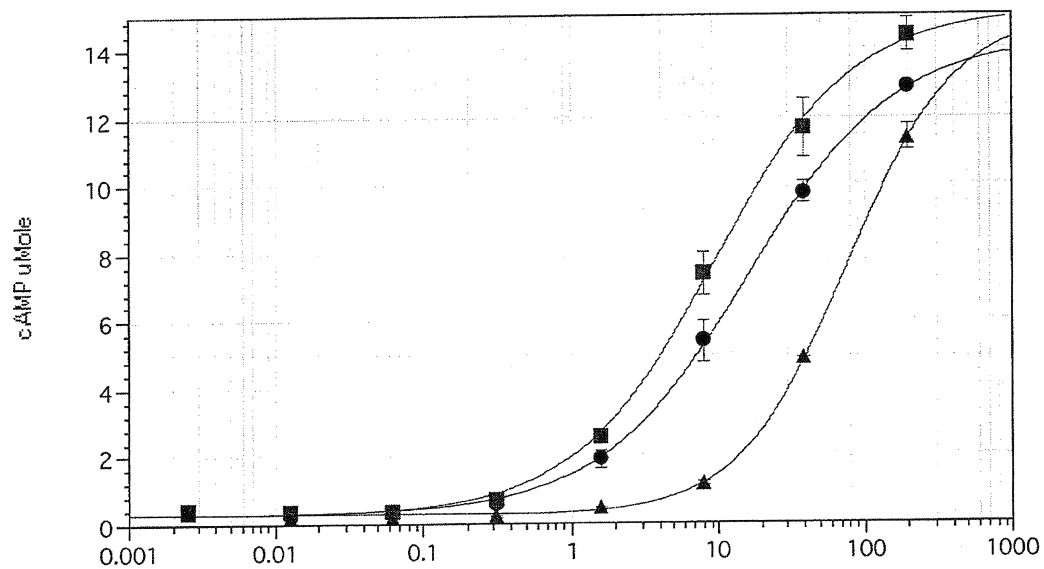
FIGURE 7

10% Tris-Acetate NuPAGE



M. Mol. wt. markers
1. PB1046
2. PB1046 heated*
3. PB1047
4. PB1047 heated*
5. PB1048
6. PB1048 heated*
M. Mol. wt. markers

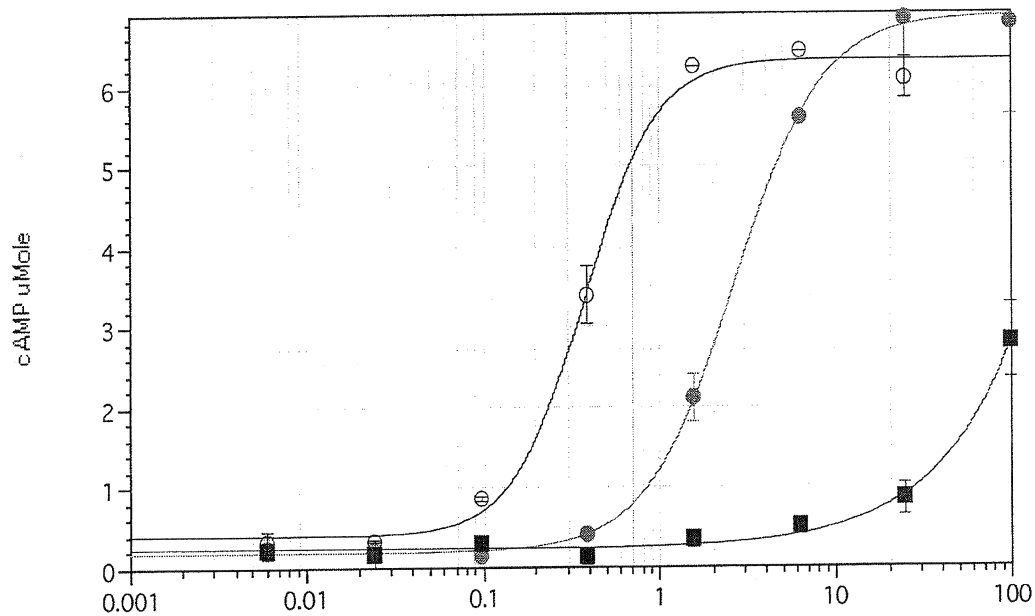
FIGURE 8



4-P Fit: $y = (A - D) / (1 + (x/C)^B) + D$:

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>R²</u>
● VIP-Peptide (VIP2: concentration vs MeanRe...	0.269	0.859	16.2	14.3	0.999
■ PB1046 (A2: concentration vs MeanResult)	0.248	0.909	9.53	15.1	0.999
▲ PB1047 (C2: concentration vs MeanResult)	0.237	1.19	77.3	15	1

FIGURE 9



4-P Fit: $y = (A - D) / (1 + (x/C)^B) + D$:

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>R²</u>
● PB1047 (B: concentration vs MeanResult)	0.182	1.73	2.66	6.87	1
■ PB1046 (C: concentration vs MeanResult)	0.224	0.96	1.88e+08	2.72e+06	0.993
○ VIP Peptide (VIP: concentration vs MeanRes...)	0.386	2.15	0.379	6.32	0.997

FIGURE 10

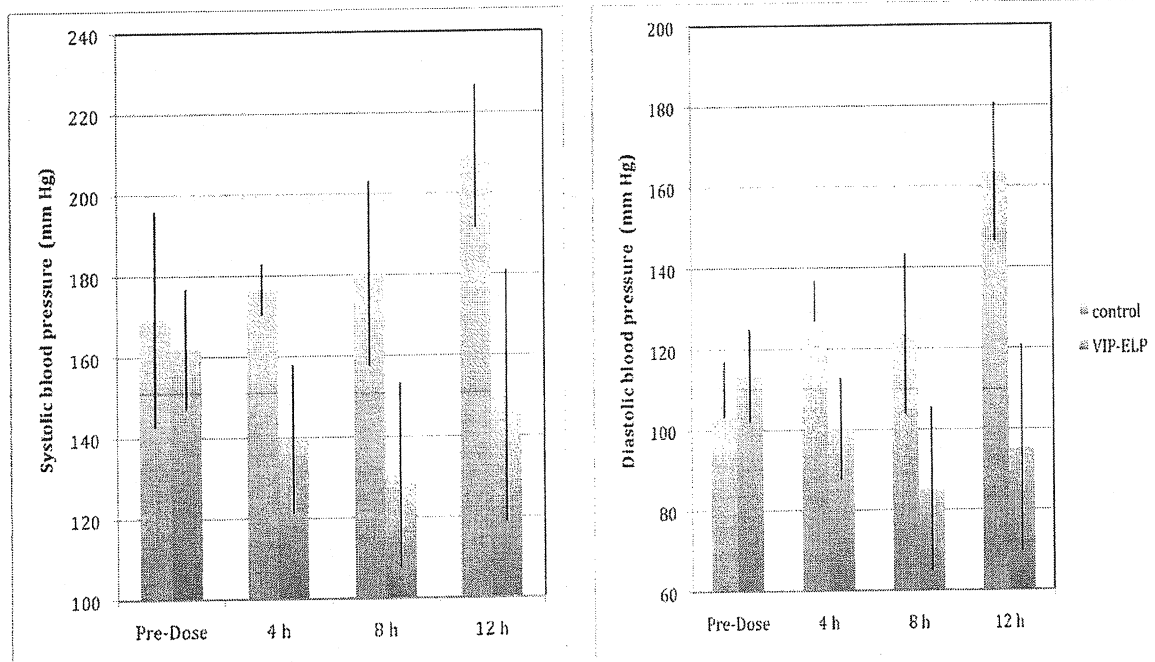


FIGURE 11

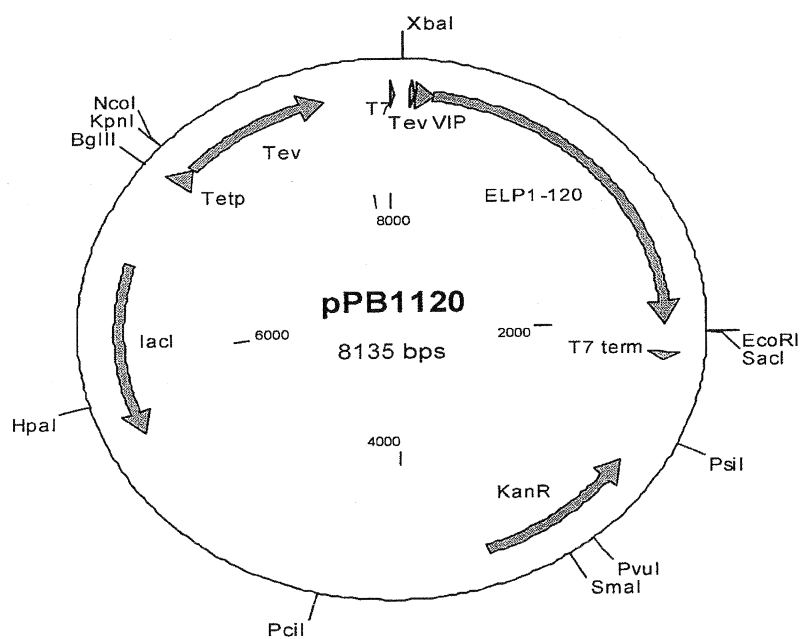


FIGURE 12

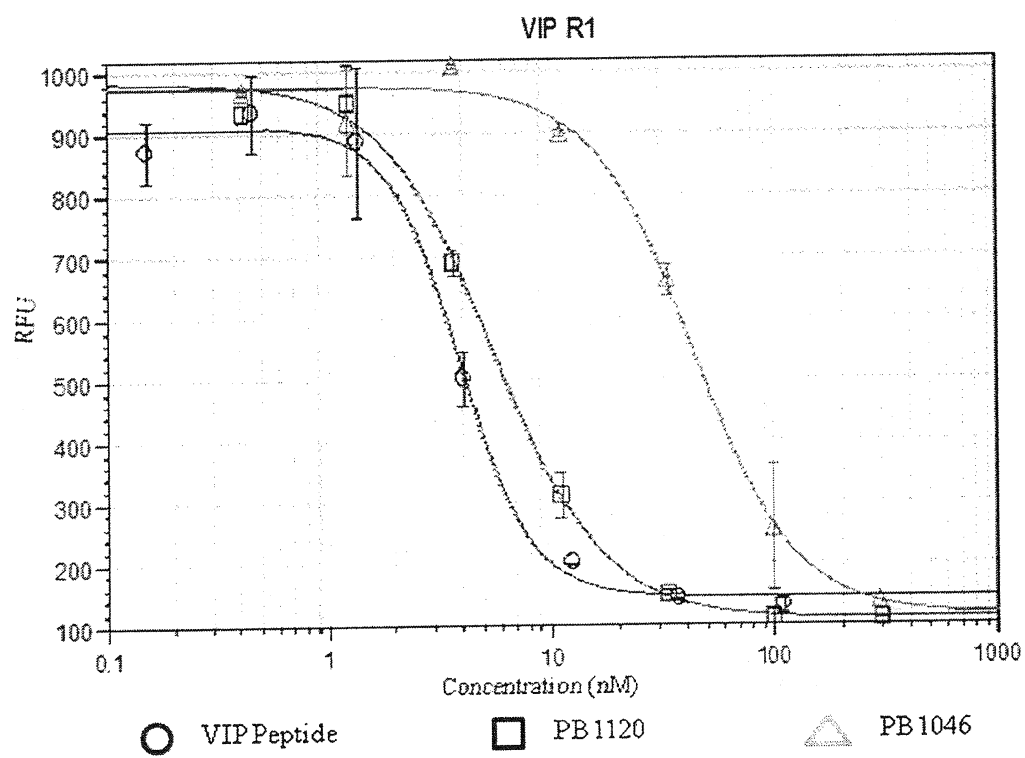


FIGURE 13

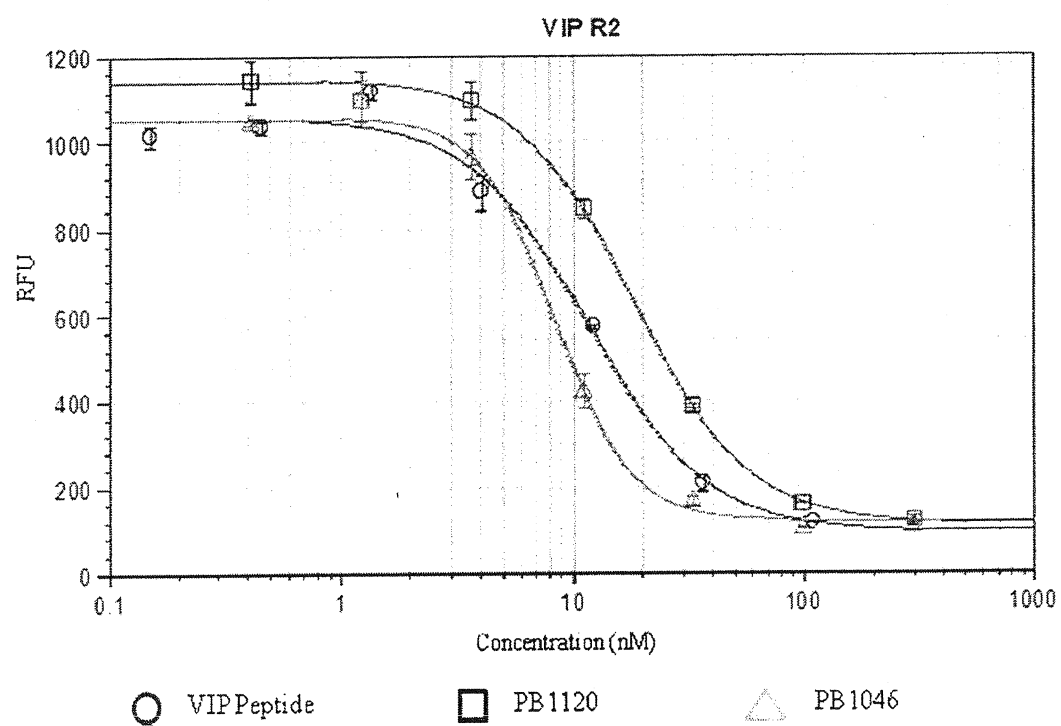
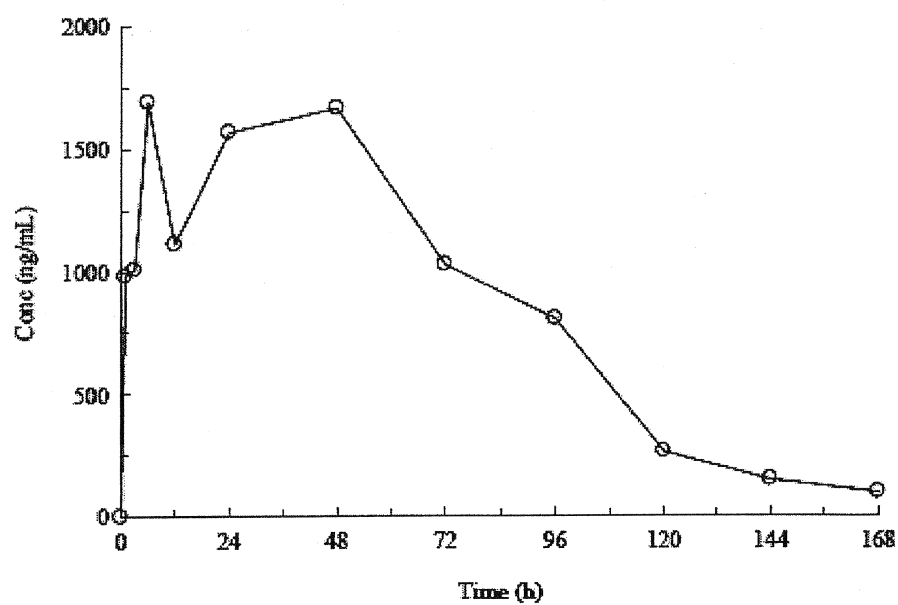


FIGURE 14

A



B

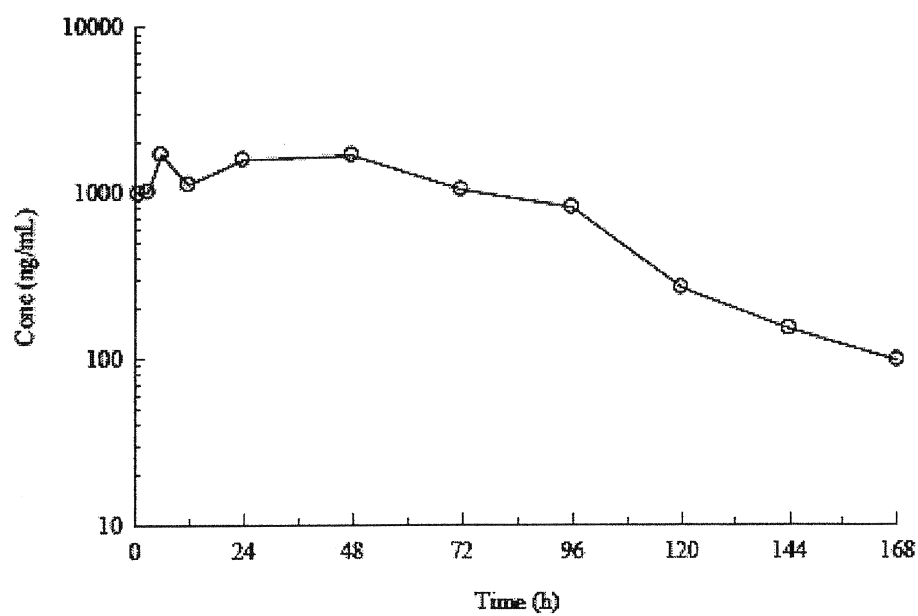


FIGURE 15A

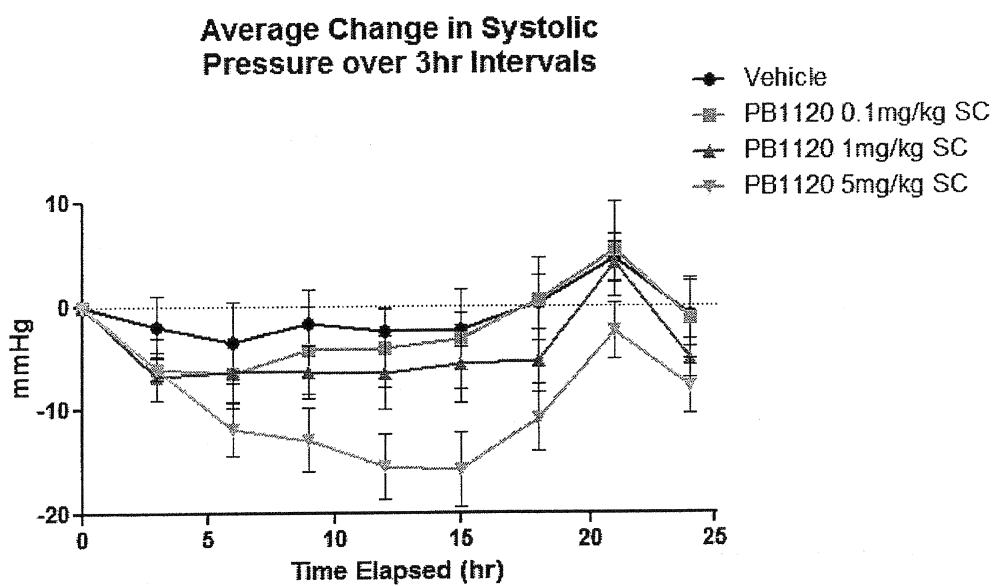


FIGURE 15B

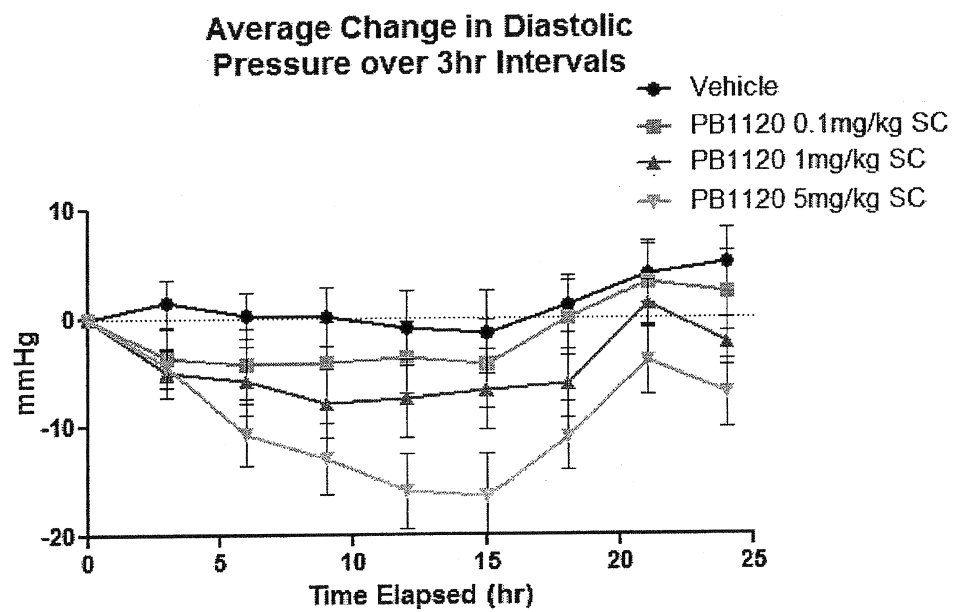


FIGURE 15C

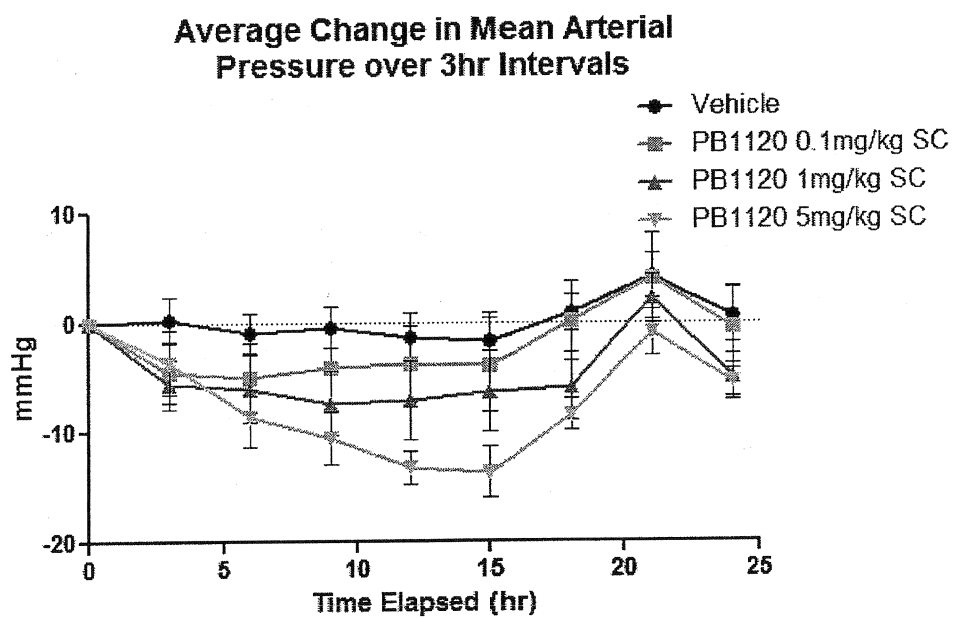


FIGURE 15D

