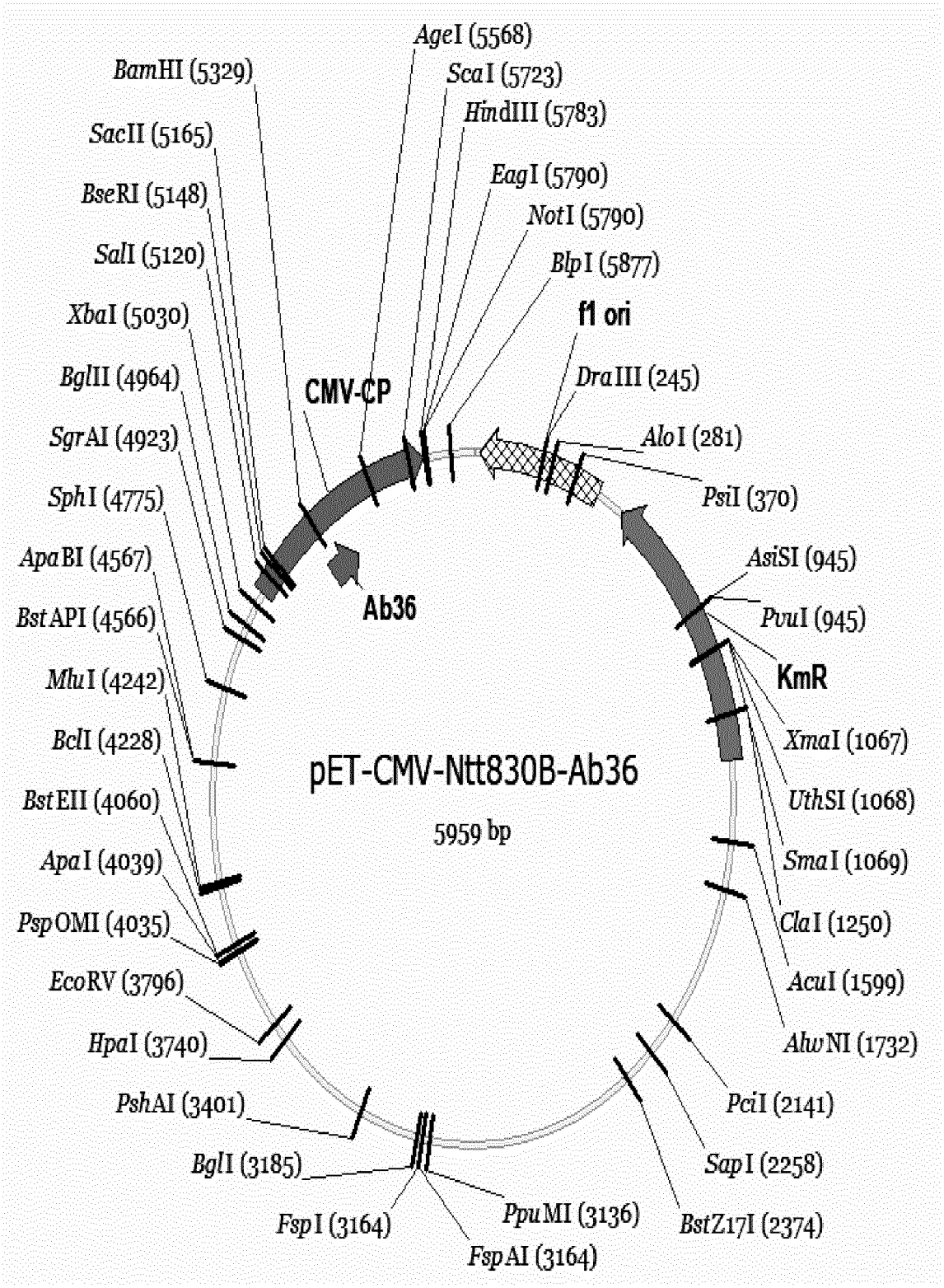

AgeI (5568)
ScaI (5723)
HindIII (5783)
EagI (5790)
NotI (5790)
BlpI (5877)
f1 ori
DraIII (245)
AloI (281)
PsiI (370)
AsiSI (945)
PvuI (945)
KmR
XmaI (1067)
UthSI (1068)
SmaI (1069)
ClaI (1250)
AcuI (1599)
AlwNI (1732)
PciI (2141)
SapI (2258)
BstZ17I (2374)
FspAI (3164)
FspI (3164)
PpuMI (3136)
BglI (3185)
PshAI (3401)
HpaI (3740)
EcoRV (3796)
PspOMI (4035)
ApaI (4039)
BstEII (4060)
BclI (4228)
MluI (4242)
BstAPI (4566)
ApaBI (4567)
SphI (4775)
SgrAI (4923)
BglII (4964)
XbaI (5030)
SalI (5120)
BseRI (5148)
SacII (5165)
BamHI (5329)
CMV-CP
Ab36
pET-CMV-Ntt830B-Ab36
5959 bp

FIG. 1

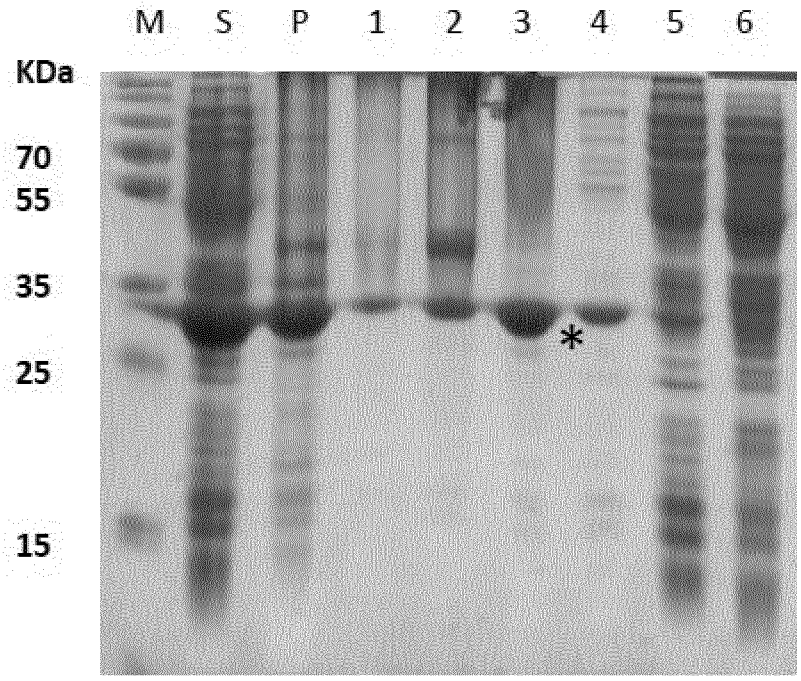


FIG. 2A

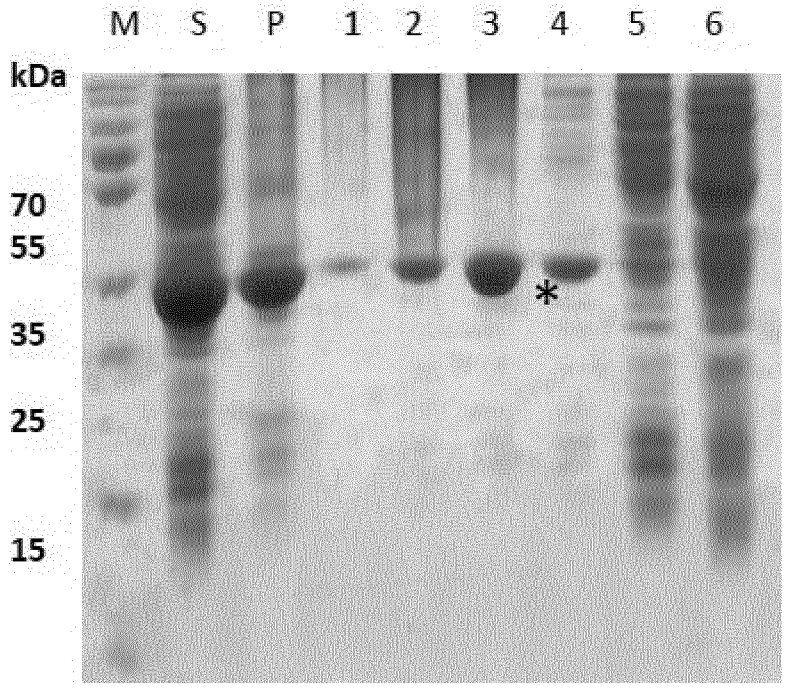


FIG. 2B

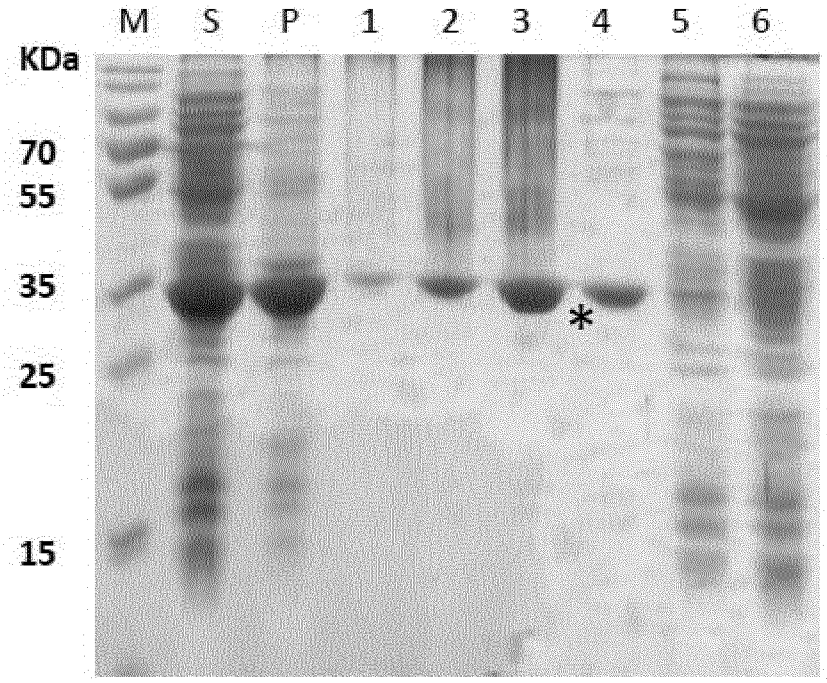


FIG. 2C

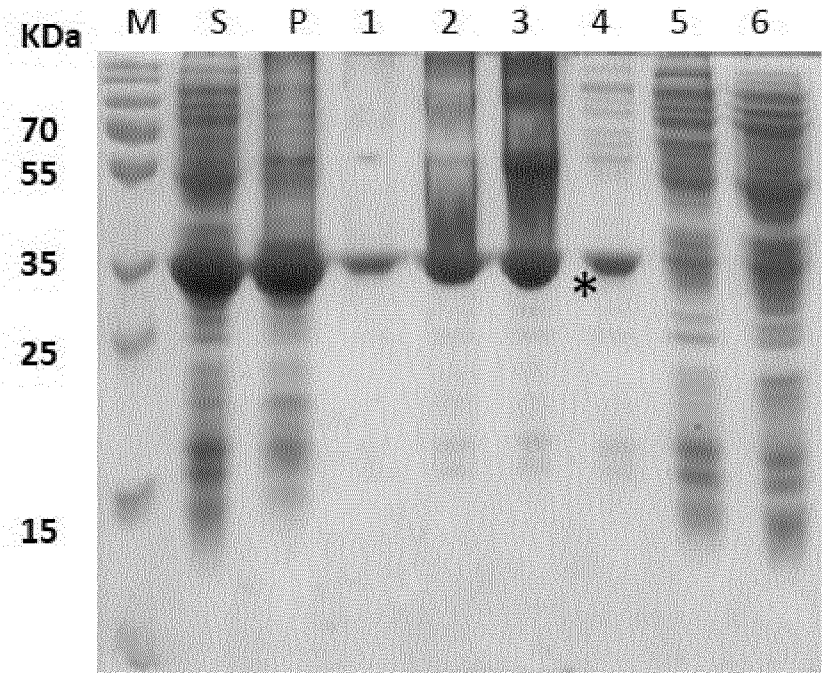


FIG. 2D

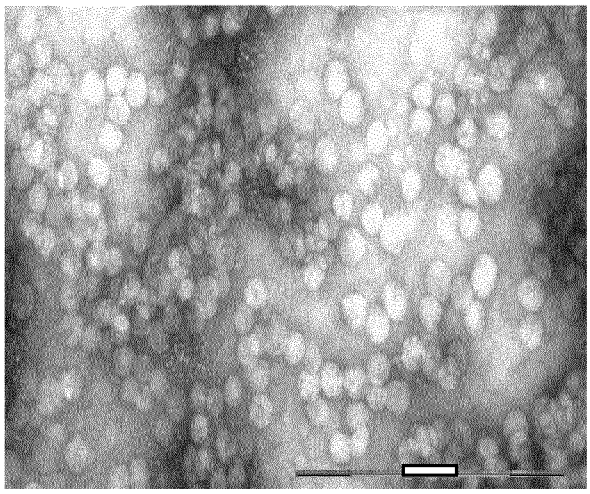


FIG. 3A

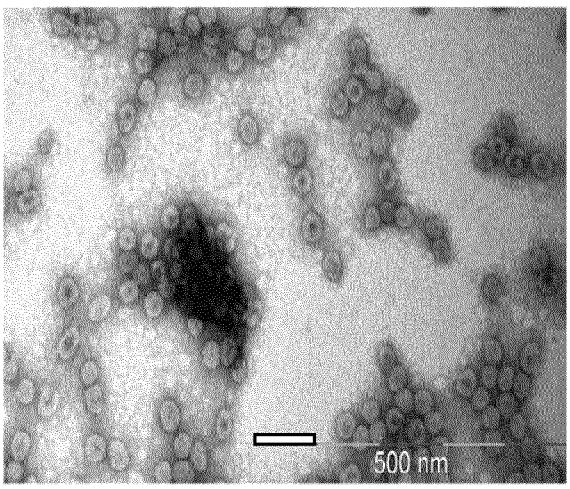


FIG. 3B

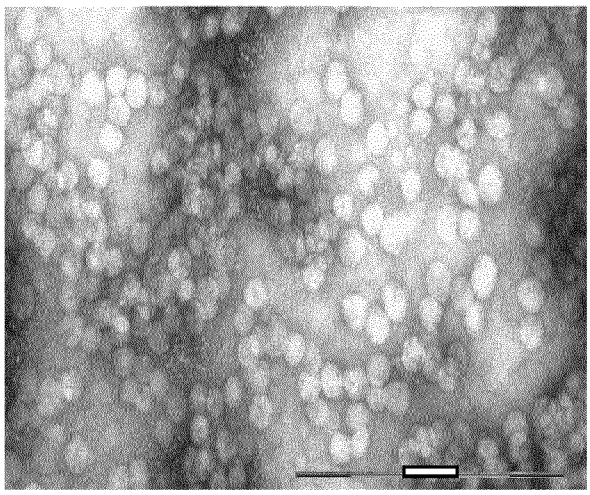


FIG. 3C

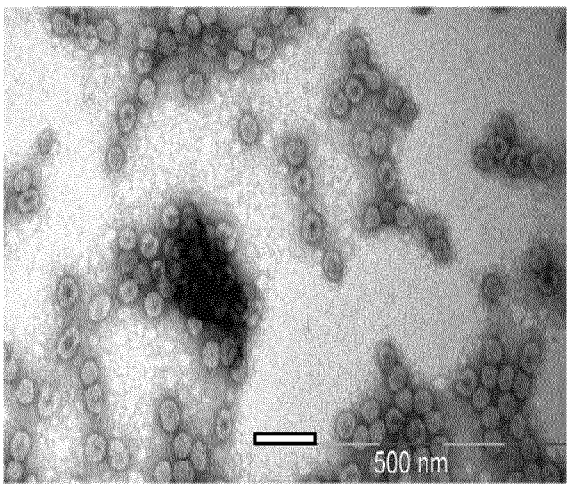


FIG. 3D

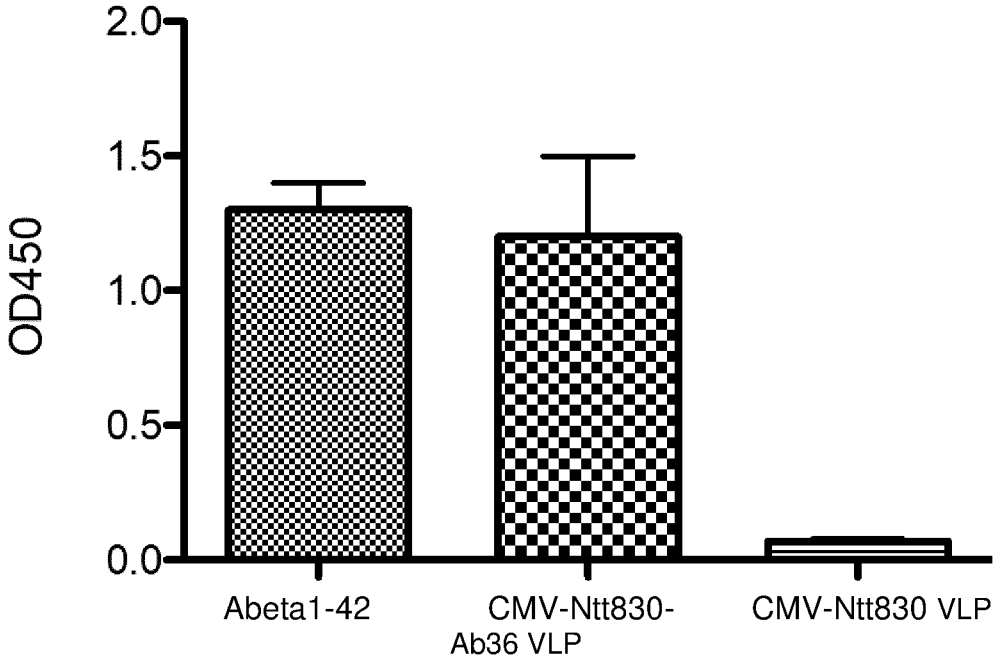

2.0
1.5
1.0
0.5
0.0
OD450
Abeta1-42
CMV-Ntt830-Ab36 VLP
CMV-Ntt830 VLP

FIG. 4

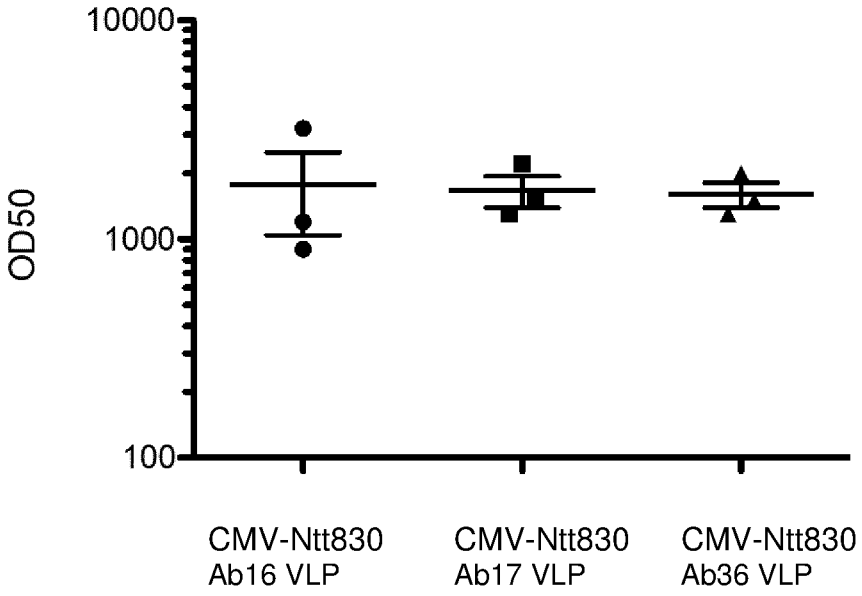

10000
1000
100
OD50
CMV-Ntt830 Ab16 VLP
CMV-Ntt830 Ab17 VLP
CMV-Ntt830 Ab36 VLP

FIG. 5A

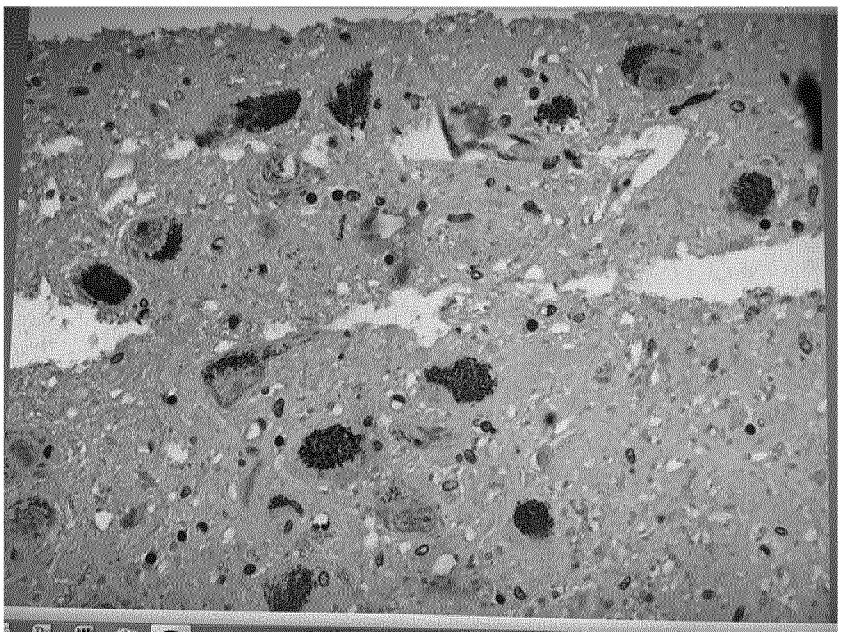


FIG. 5B

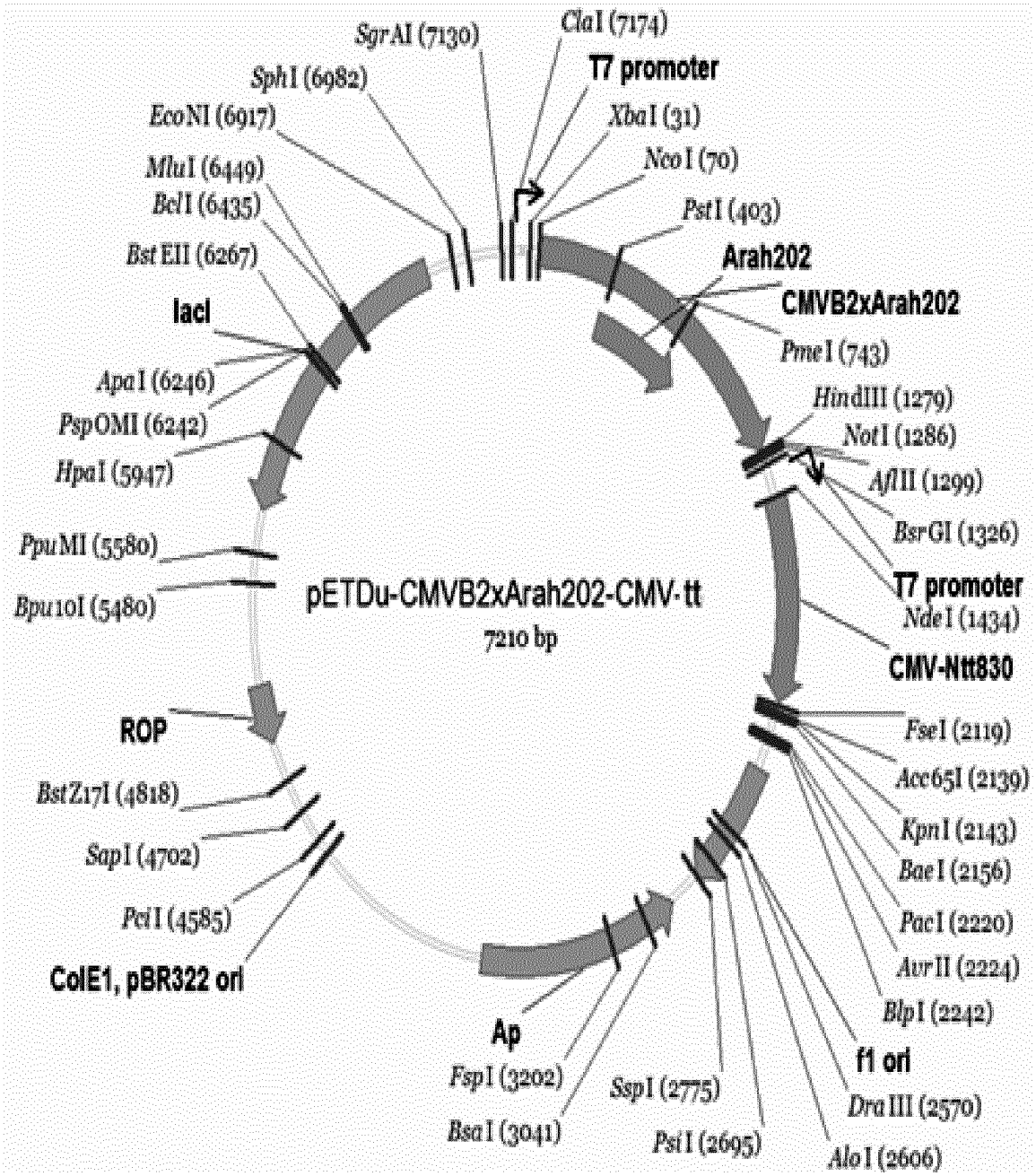

SgrAI (7130)
ClaI (7174)
T7 promoter
SphI (6982)
XbaI (31)
EcoNI (6917)
NcoI (70)
MluI (6449)
PstI (403)
BclI (6435)
Arah202
BstEII (6267)
CMVB2xArah202
lacI
PmeI (743)
ApaI (6246)
HindIII (1279)
PspOMI (6242)
NotI (1286)
HpaI (5947)
AflII (1299)
BsrGI (1326)
PpuMI (5580)
T7 promoter
pETDu-CMVB2xArah202-CMV-tt
Bpu10I (5480)
NdeI (1434)
7210 bp
CMV-Ntt830
ROP
FseI (2119)
Acc65I (2139)
BstZ17I (4818)
KpnI (2143)
SapI (4702)
BaeI (2156)
PciI (4585)
PacI (2220)
ColE1, pBR322 ori
AvrII (2224)
BlpI (2242)
Ap
f1 ori
FspI (3202)
SspI (2775)
DraIII (2570)
BsaI (3041)
PstI (2695)
AloI (2606)

FIG. 6

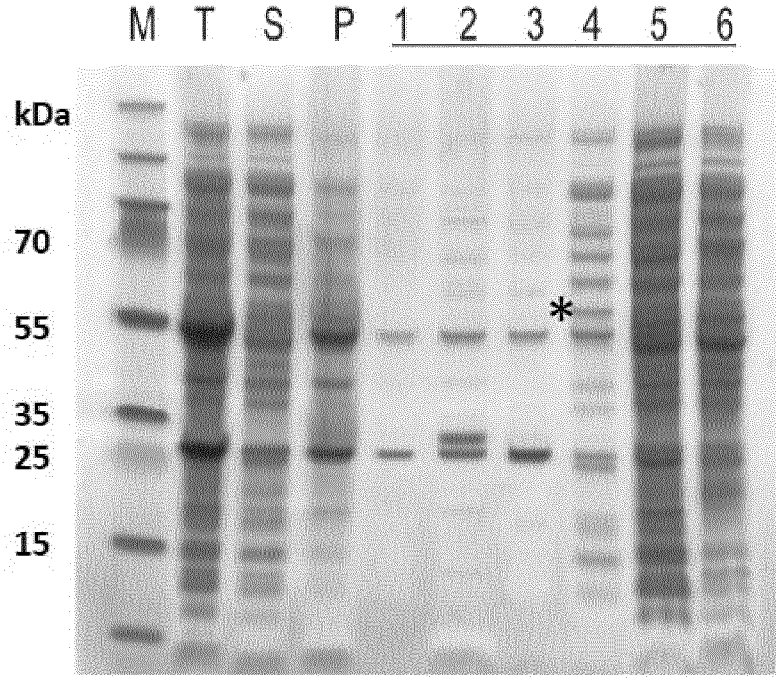


FIG. 7A

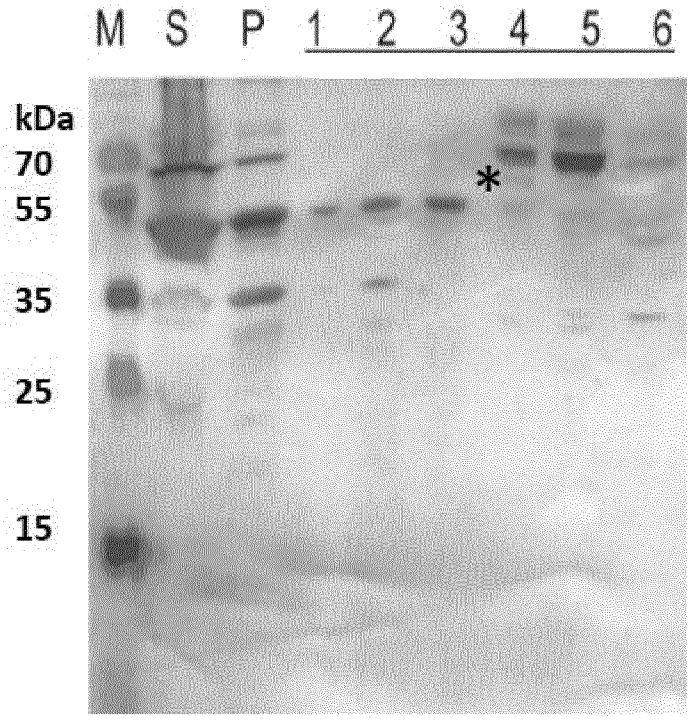


FIG. 7B

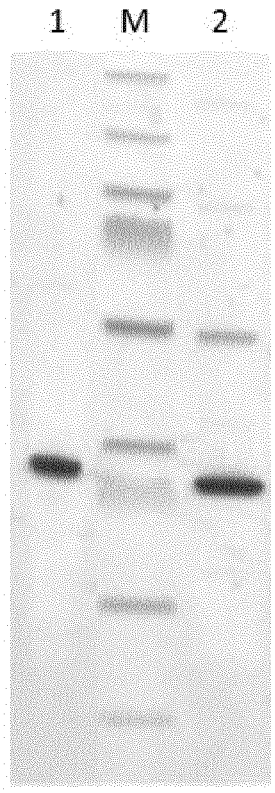


FIG. 8A

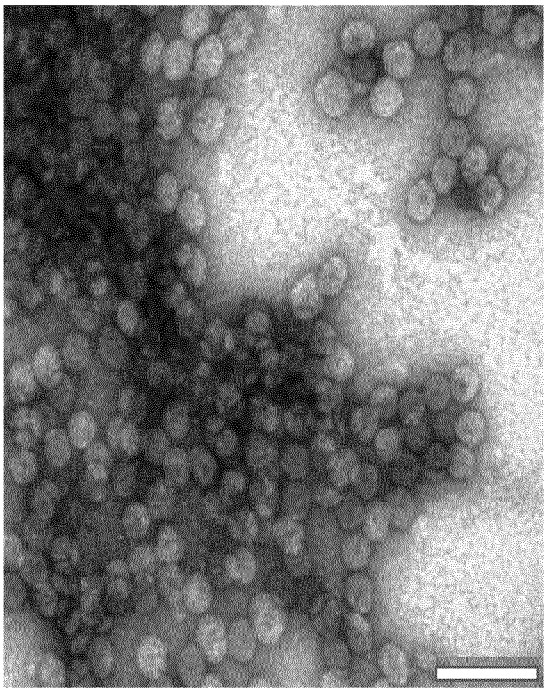


FIG. 8B

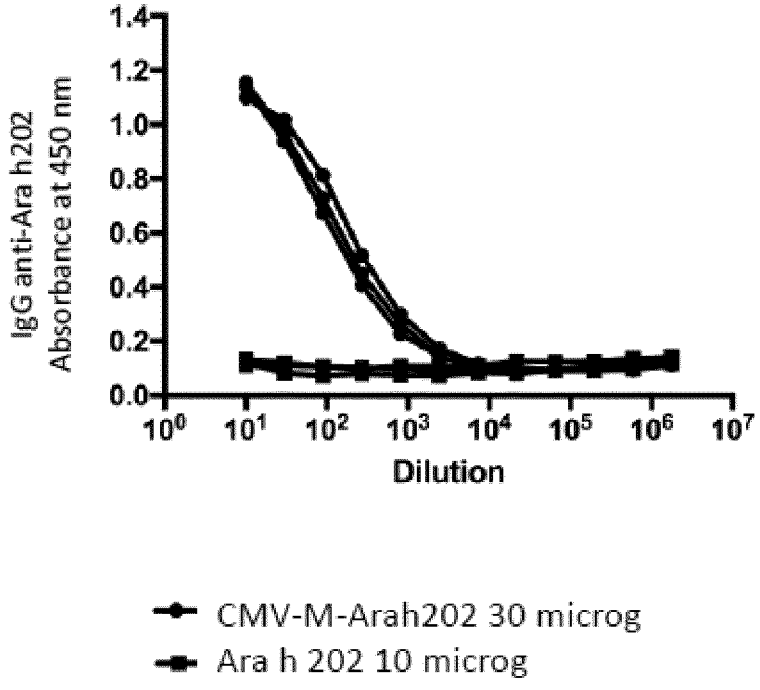


FIG. 9

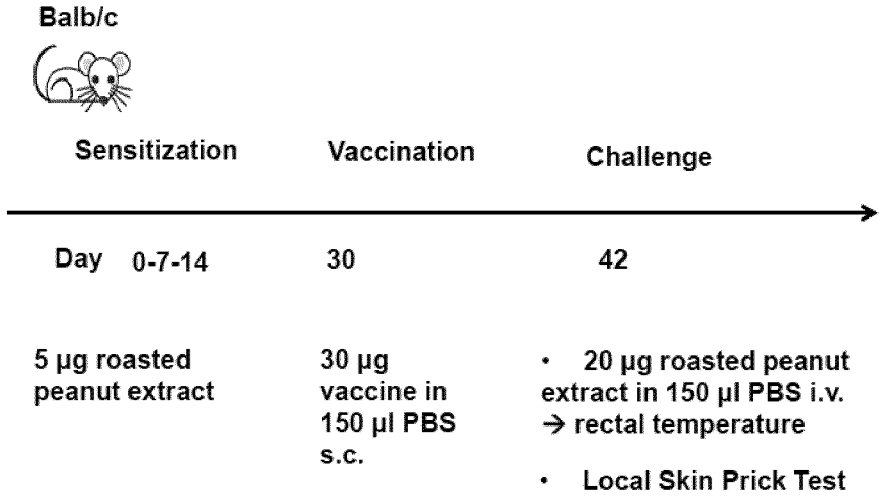


FIG. 10A

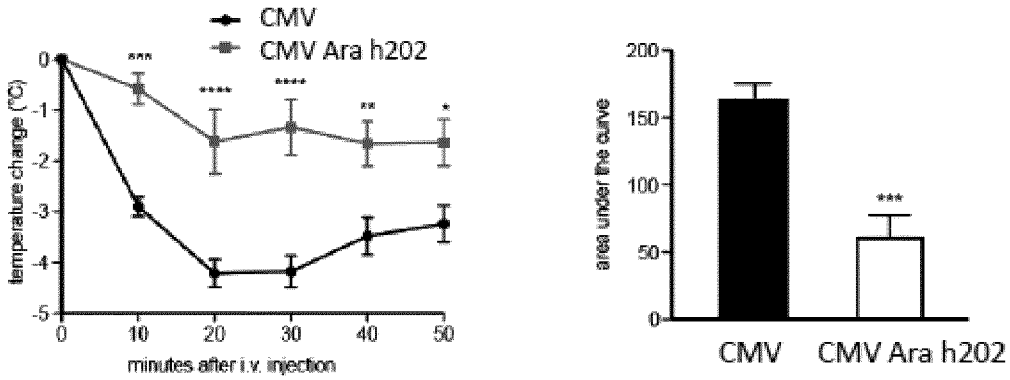


FIG. 10B

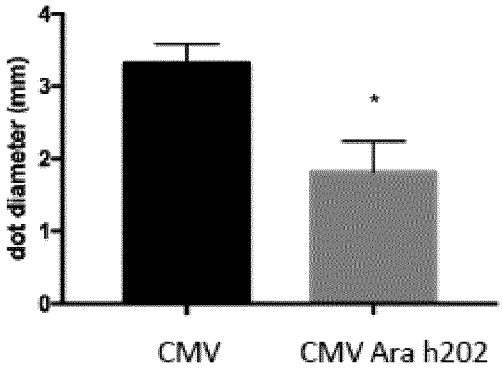


FIG. 10C

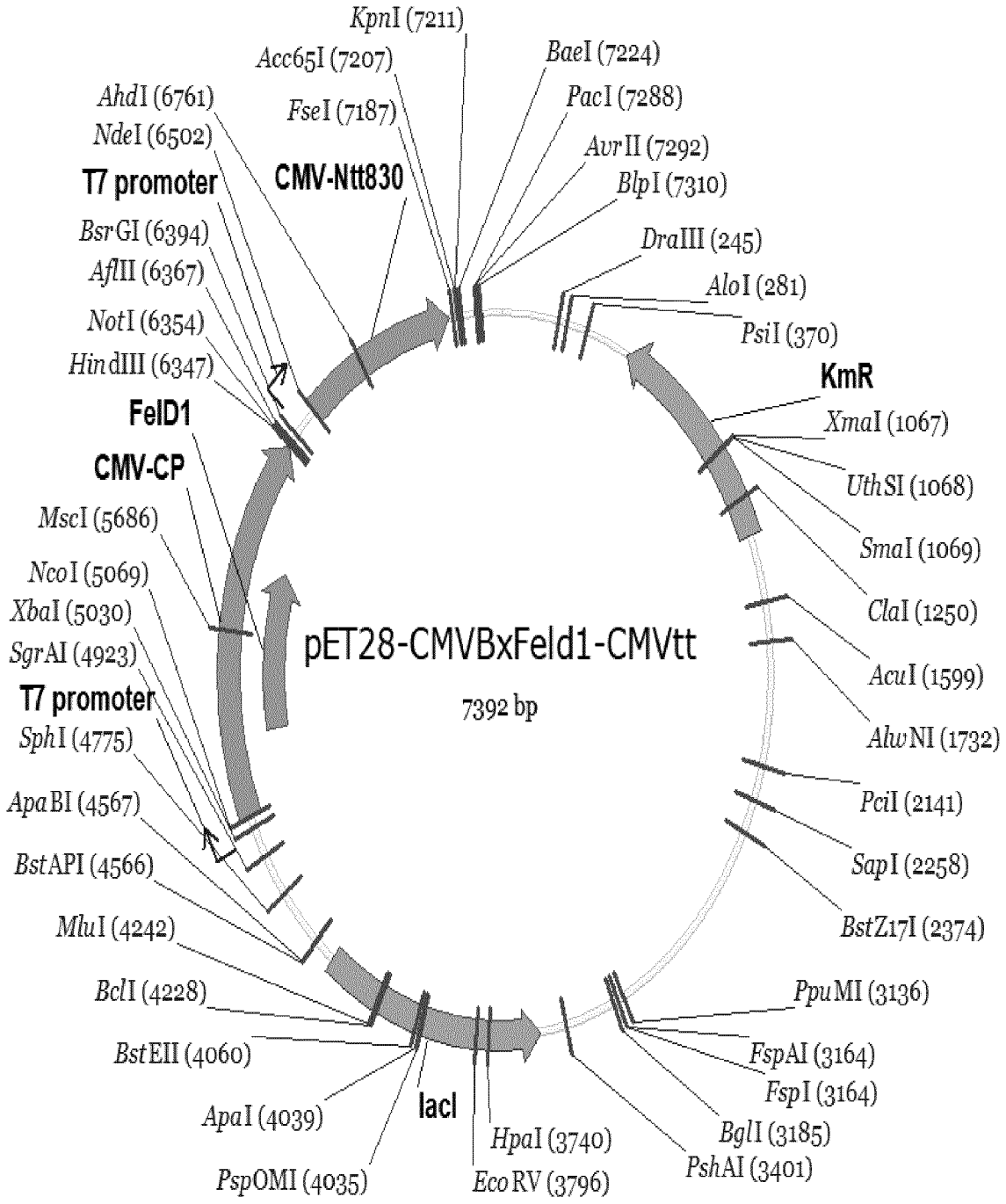

pET28-CMVBxFeld1-CMVtt
7392 bp
KpnI (7211)
Acc65I (7207)
FseI (7187)
AhdI (6761)
NdeI (6502)
T7 promoter
CMV-Ntt830
BsrGI (6394)
AflII (6367)
NotI (6354)
HindIII (6347)
FelD1
CMV-CP
MscI (5686)
NcoI (5069)
XbaI (5030)
SgrAI (4923)
T7 promoter
SphI (4775)
ApaBI (4567)
BstAPI (4566)
MluI (4242)
BclI (4228)
BstEII (4060)
ApaI (4039)
PspOMI (4035)
lacI
HpaI (3740)
EcoRV (3796)
PshAI (3401)
BglI (3185)
FspI (3164)
FspAI (3164)
PpuMI (3136)
BstZ17I (2374)
SapI (2258)
PciI (2141)
AlwNI (1732)
AcuI (1599)
ClaI (1250)
SmaI (1069)
UthSI (1068)
XmaI (1067)
KmR
PsiI (370)
AloI (281)
DraIII (245)
BlpI (7310)
AvrII (7292)
PacI (7288)
BaeI (7224)

FIG. 11

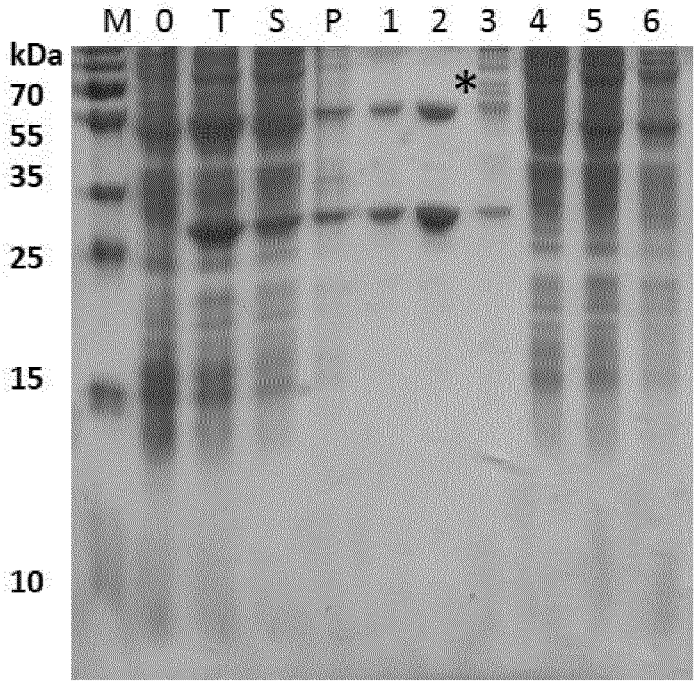


FIG. 12A

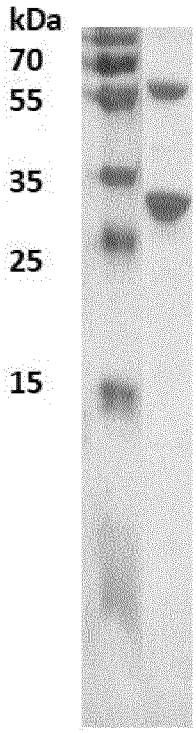


FIG. 12B

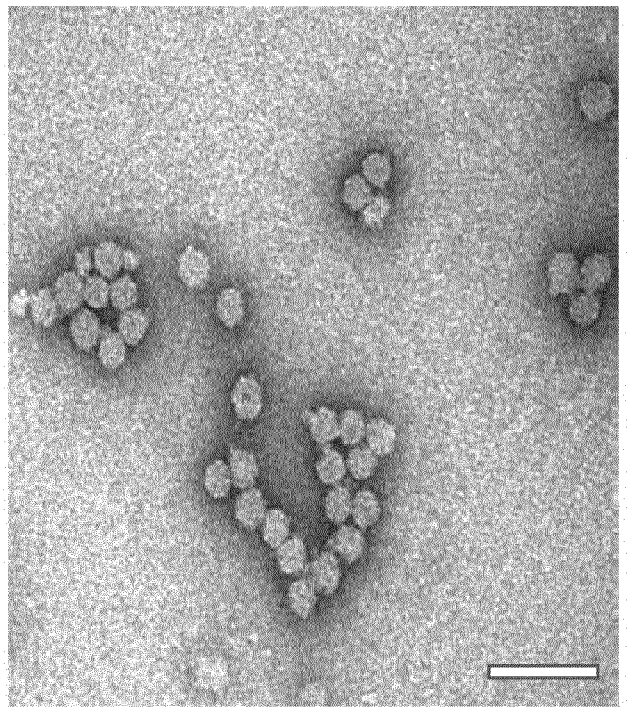


FIG. 12C

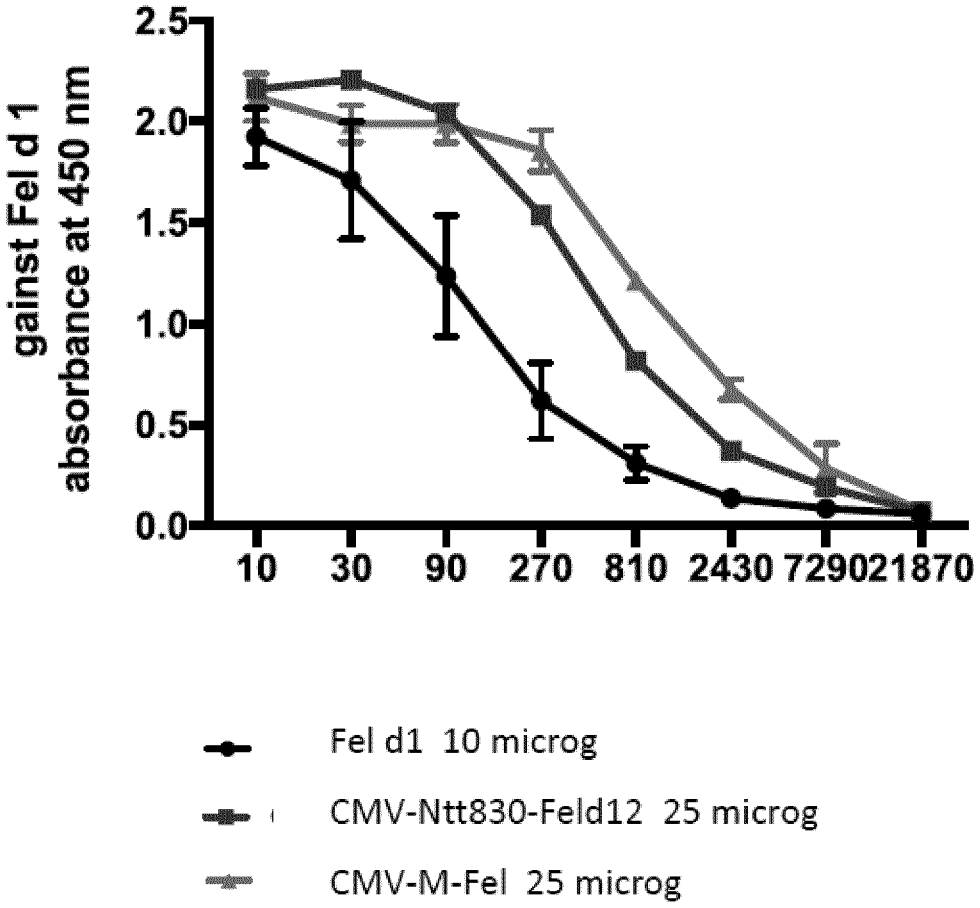

gainst Fel d 1
absorbance at 450 nm
2.5
2.0
1.5
1.0
0.5
0.0
10
30
90
270
810
2430
729021870
Fel d1 10 microg
CMV-Ntt830-Feld12 25 microg
CMV-M-Fel 25 microg

FIG. 13



Balb/c

Sensitization	Vaccination	Challenge
Day 0	21	42
1 µg Fe d 1extract	30 µg vaccine in 150 µl PBS s.c.	3 µg roasted Fel d 1 in 150 µl PBS i.v. → rectal temperature

FIG. 14A

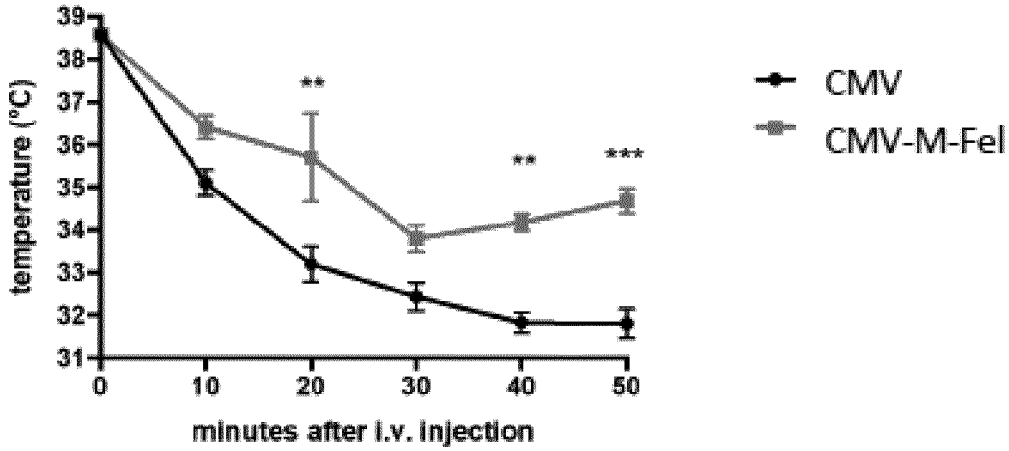


FIG. 14B

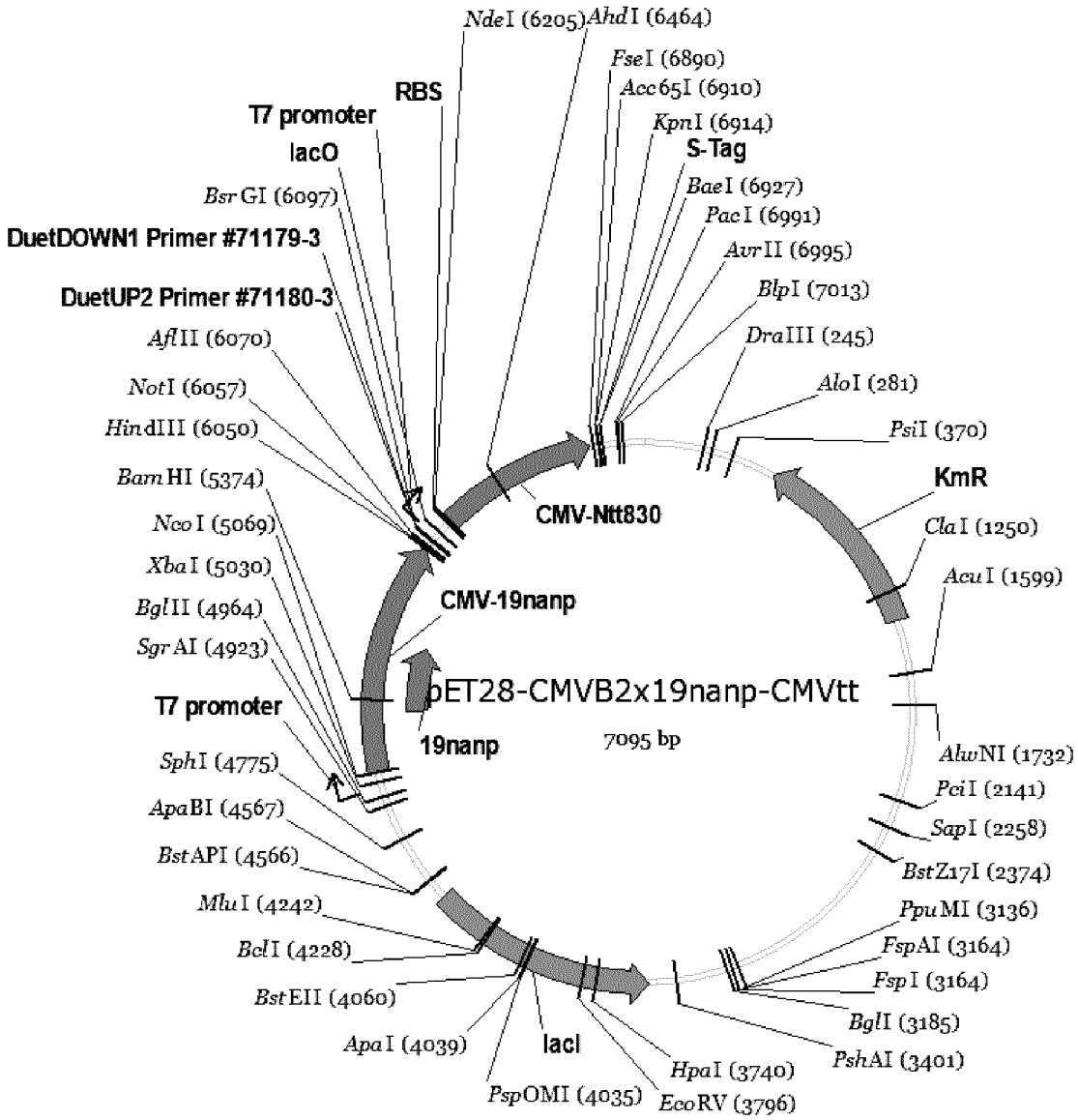

NdeI (6205)
AhdI (6464)
FseI (6890)
Acc65I (6910)
KpnI (6914)
S-Tag
BaeI (6927)
PacI (6991)
AvrII (6995)
BlpI (7013)
DraIII (245)
AloI (281)
PsiI (370)
KmR
ClaI (1250)
AcuI (1599)
AlwNI (1732)
PciI (2141)
SapI (2258)
BstZ17I (2374)
PpuMI (3136)
FspAI (3164)
FspI (3164)
BglI (3185)
PshAI (3401)
HpaI (3740)
EcoRV (3796)
PspOMI (4035)
ApaI (4039)
lacI
BstEII (4060)
BclI (4228)
MluI (4242)
BstAPI (4566)
ApaBI (4567)
SphI (4775)
T7 promoter
19nanp
CMV-19nanp
CMV-Ntt830
RBS
T7 promoter
lacO
BsrGI (6097)
DuetDOWN1 Primer #71179-3
DuetUP2 Primer #71180-3
AflII (6070)
NotI (6057)
HindIII (6050)
BamHI (5374)
NcoI (5069)
XbaI (5030)
BglII (4964)
SgrAI (4923)
pET28-CMVB2x19nanp-CMVtt
7095 bp

FIG. 15

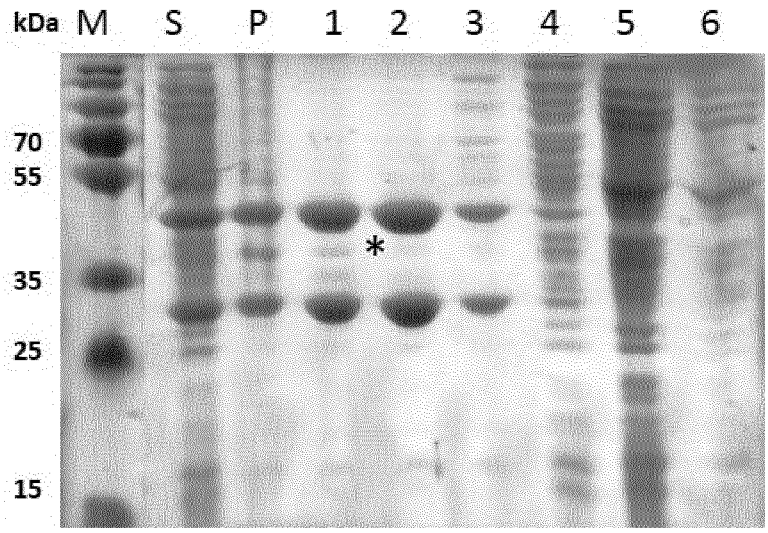


FIG. 16

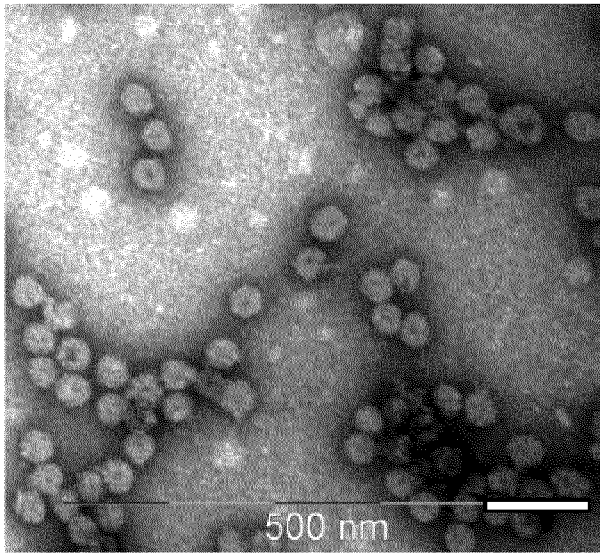


FIG. 17

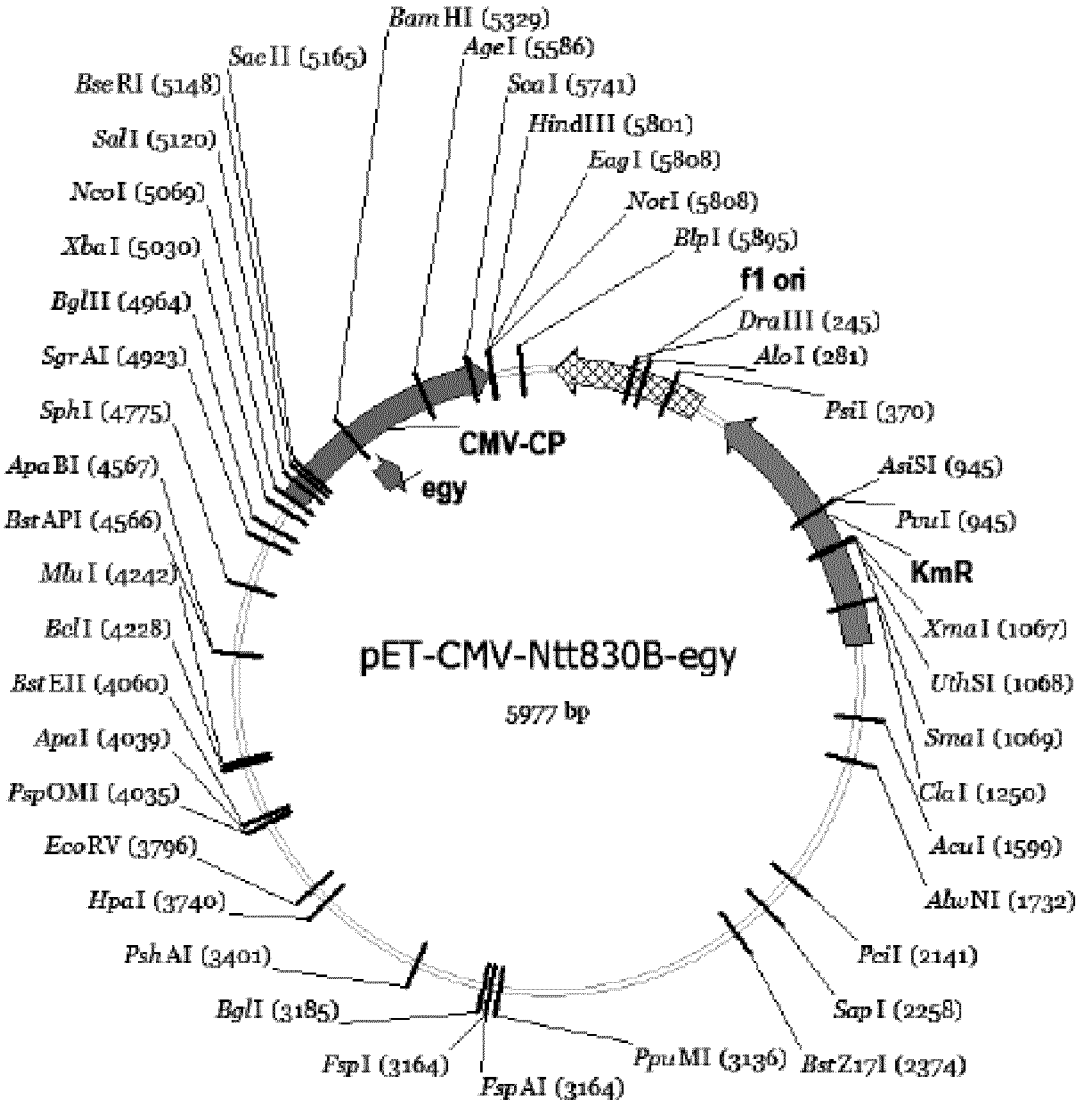

pET-CMV-Ntt830B-egy
5977 bp
CMV-CP
egy
f1 ori
KmR
BamHI (5329)
AgeI (5586)
SacII (5165)
ScaI (5741)
BseRI (5148)
HindIII (5801)
SalI (5120)
EagI (5808)
NcoI (5069)
NotI (5808)
XbaI (5030)
BlpI (5895)
BglII (4964)
DraIII (245)
SgrAI (4923)
AloI (281)
SphI (4775)
PsiI (370)
ApaBI (4567)
AsiSI (945)
BstAPI (4566)
PmeI (945)
MluI (4242)
XmaI (1067)
BclI (4228)
UthSI (1068)
BstEII (4060)
SmaI (1069)
ApaI (4039)
ClaI (1250)
PspOMI (4035)
AcuI (1599)
EcoRV (3796)
AhdNI (1732)
HpaI (3740)
PciI (2141)
PshAI (3401)
SapI (2258)
BglI (3185)
PpuMI (3136)
BstZ17I (2374)
FspI (3164)
FspAI (3164)

FIG. 18

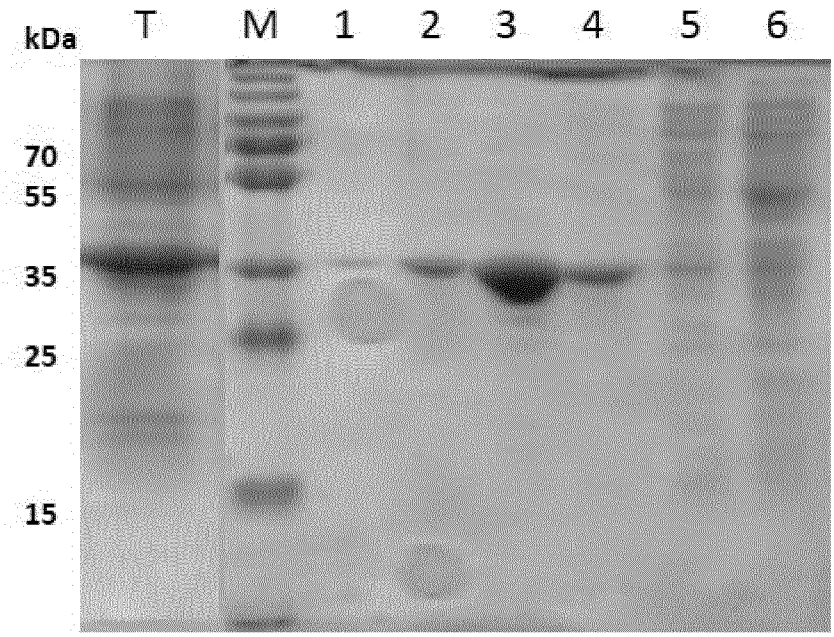


FIG. 19A

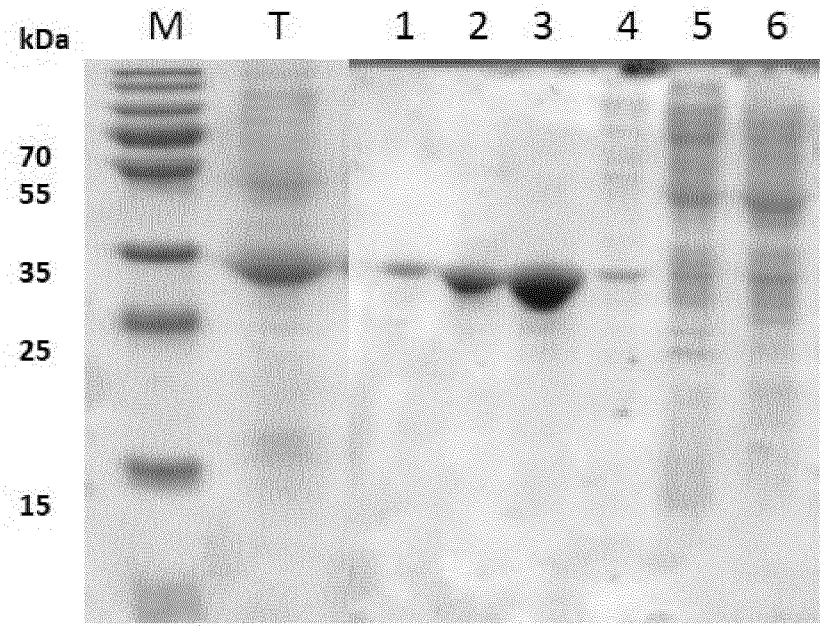


FIG. 19B

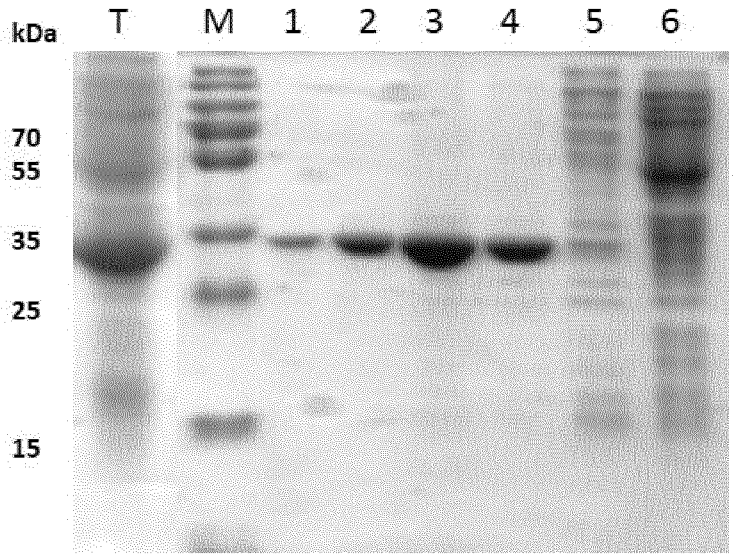


FIG. 19C

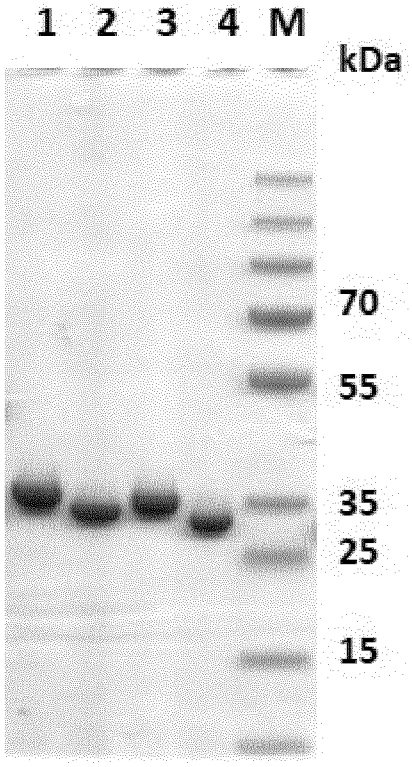


FIG. 20A

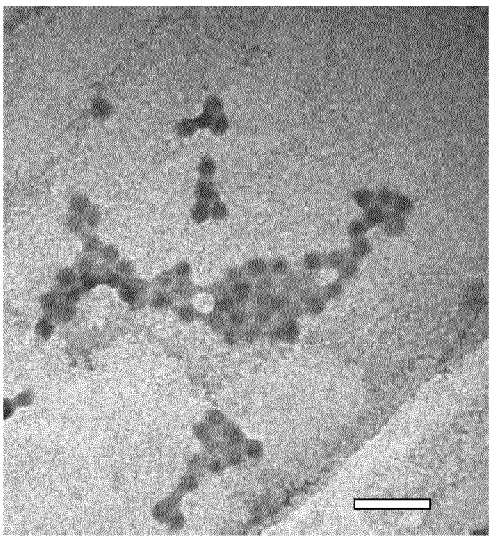


FIG. 20B

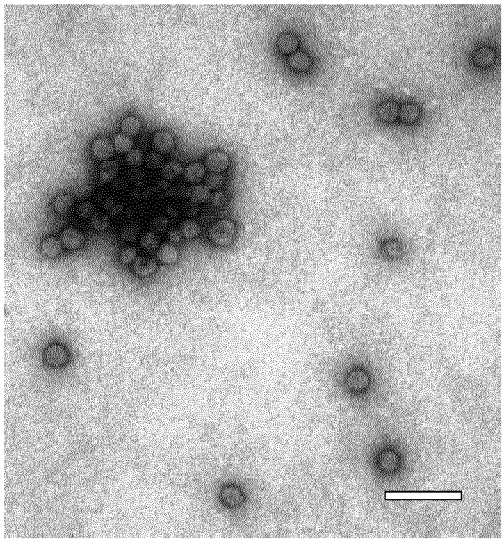


FIG. 20C

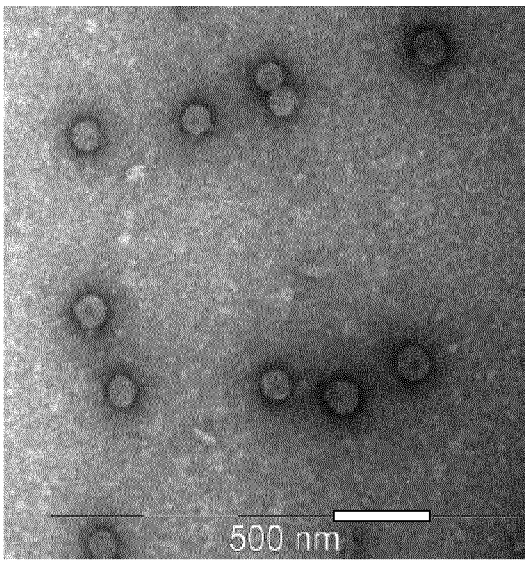


FIG. 20D

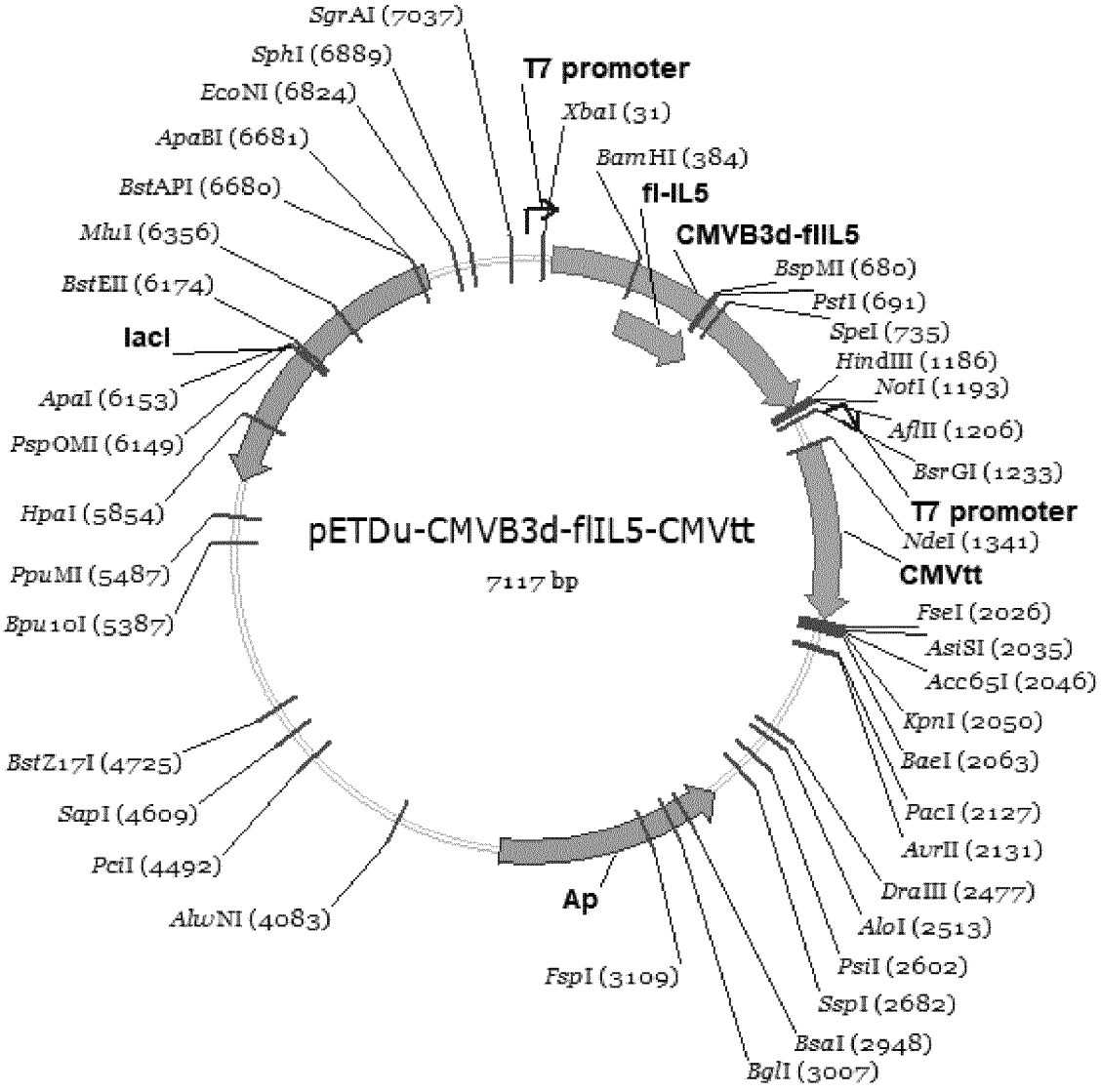

pETDu-CMVB3d-flIL5-CMVtt
7117 bp
T7 promoter
XbaI (31)
BamHI (384)
fl-IL5
CMVB3d-flIL5
BspMI (680)
PstI (691)
SpeI (735)
HindIII (1186)
NotI (1193)
AflII (1206)
BsrGI (1233)
T7 promoter
NdeI (1341)
CMVtt
FseI (2026)
AsiSI (2035)
Acc65I (2046)
KpnI (2050)
BaeI (2063)
PacI (2127)
AvrII (2131)
DraIII (2477)
AloI (2513)
PsiI (2602)
SspI (2682)
BsaI (2948)
BglI (3007)
Ap
FspI (3109)
AlwNI (4083)
PciI (4492)
SapI (4609)
BstZ17I (4725)
Epu10I (5387)
PpuMI (5487)
HpaI (5854)
PspOMI (6149)
ApaI (6153)
lacI
BstEII (6174)
MluI (6356)
BstAPI (6680)
ApaBI (6681)
EcoNI (6824)
SphI (6889)
SgrAI (7037)

FIG. 21A

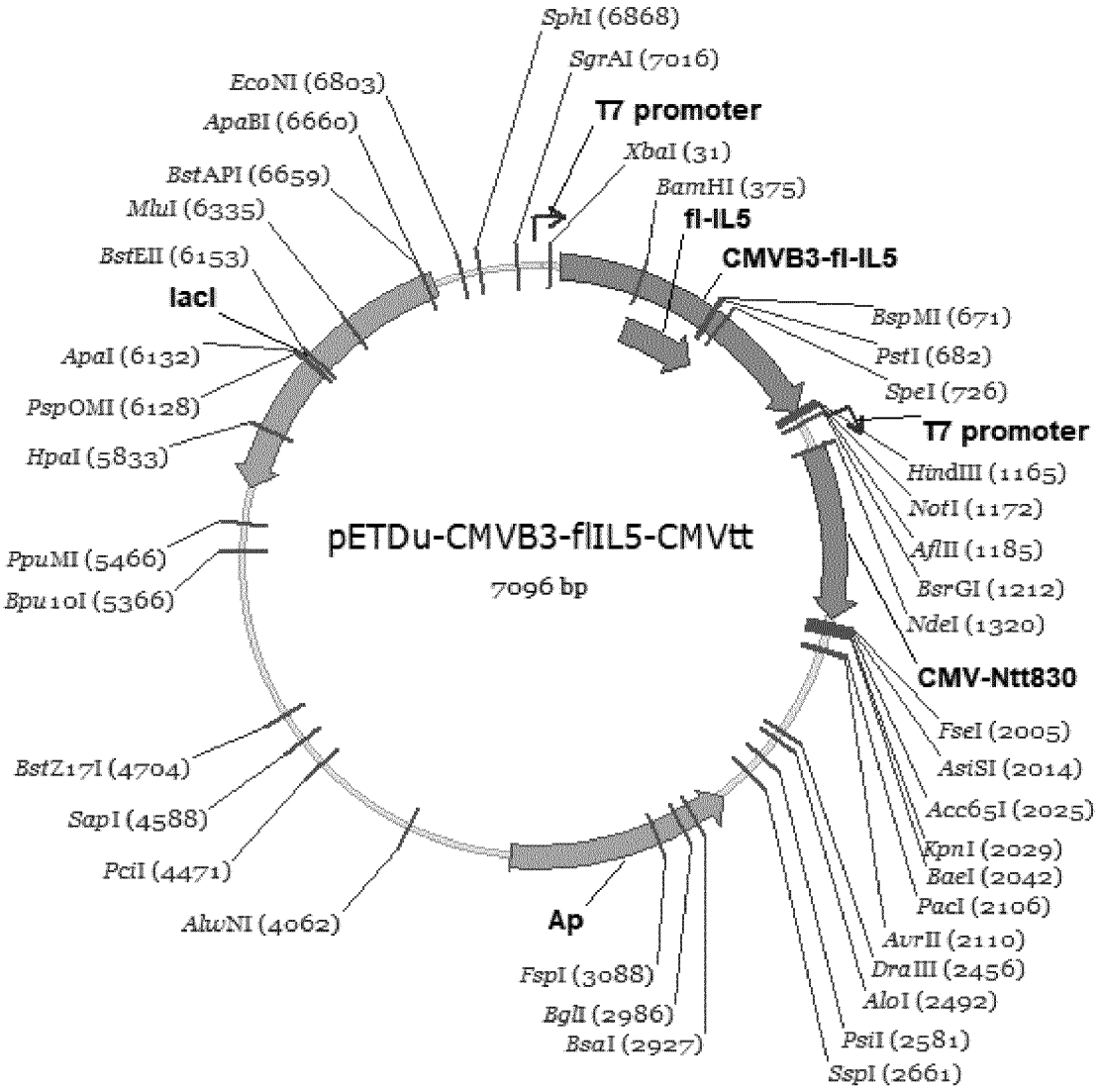

pETDu-CMVB3-flIL5-CMVtt
7096 bp
SphI (6868)
SgrAI (7016)
T7 promoter
XbaI (31)
BamHI (375)
fl-IL5
CMVB3-fl-IL5
BspMI (671)
PstI (682)
SpeI (726)
T7 promoter
HindIII (1165)
NotI (1172)
AflII (1185)
BsrGI (1212)
NdeI (1320)
CMV-Ntt830
FseI (2005)
AsiSI (2014)
Acc65I (2025)
KpnI (2029)
BaeI (2042)
PacI (2106)
AvrII (2110)
DraIII (2456)
AloI (2492)
PsiI (2581)
SspI (2661)
Ap
FspI (3088)
BglI (2986)
BsaI (2927)
AlwNI (4062)
BstZ17I (4704)
SapI (4588)
PciI (4471)
PpuMI (5466)
Bpu10I (5366)
EcoNI (6803)
ApaBI (6660)
BstAPI (6659)
MluI (6335)
BstEII (6153)
lacI
ApaI (6132)
PspOMI (6128)
HpaI (5833)

FIG. 21B

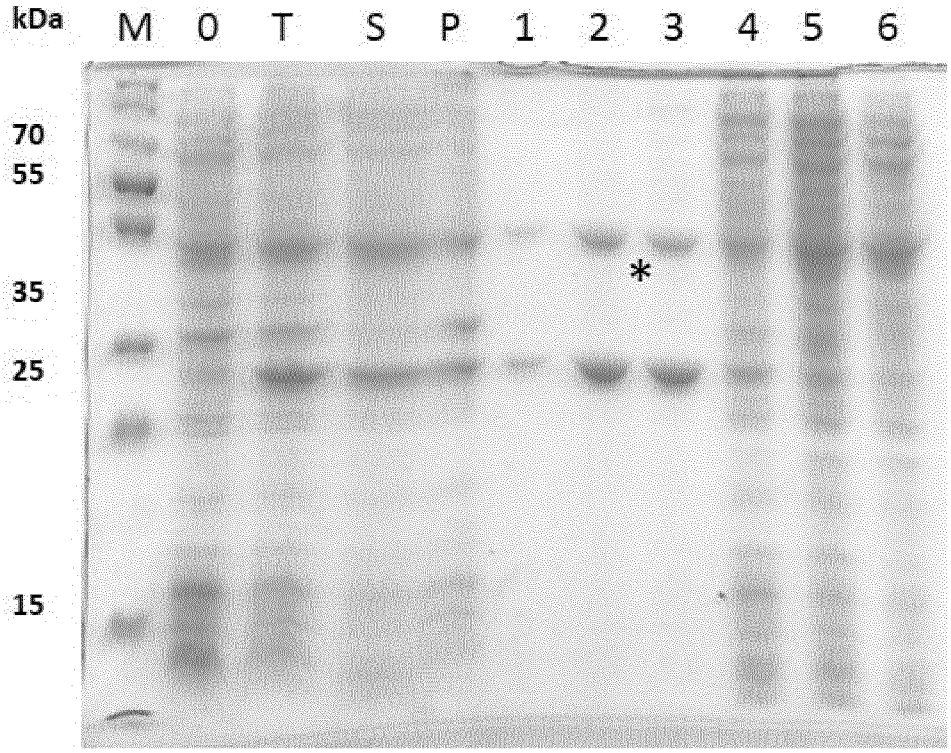


FIG. 22A

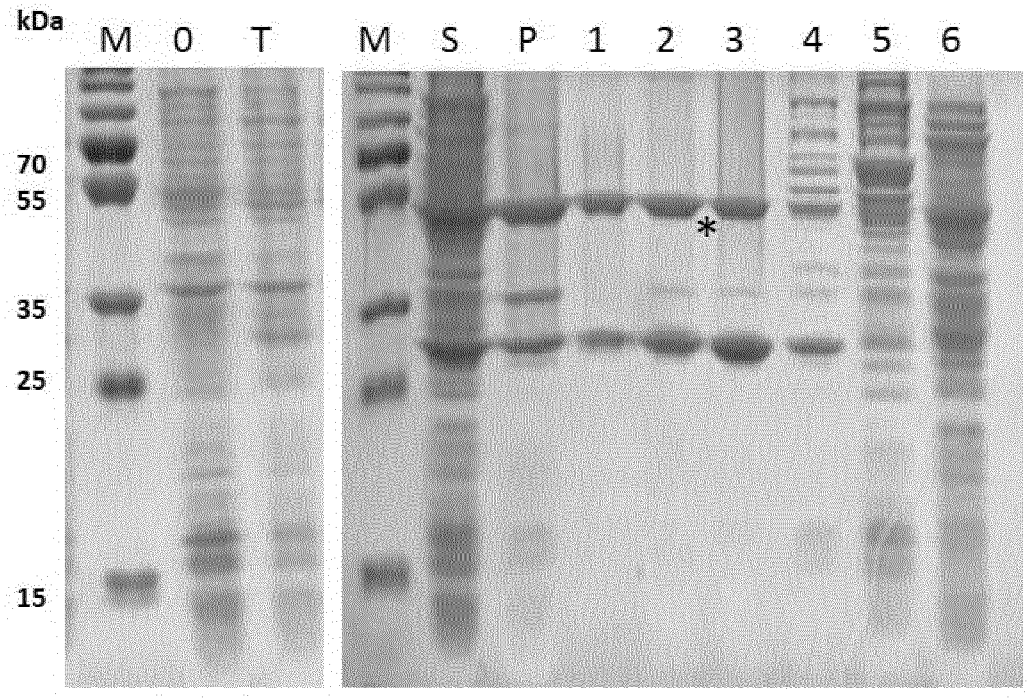


FIG. 22b

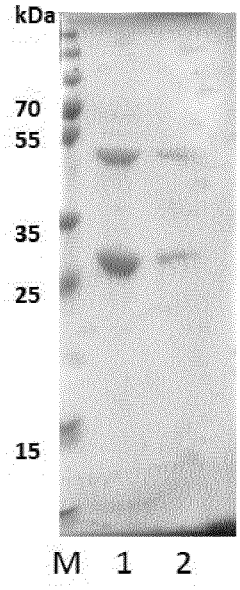


FIG. 23A

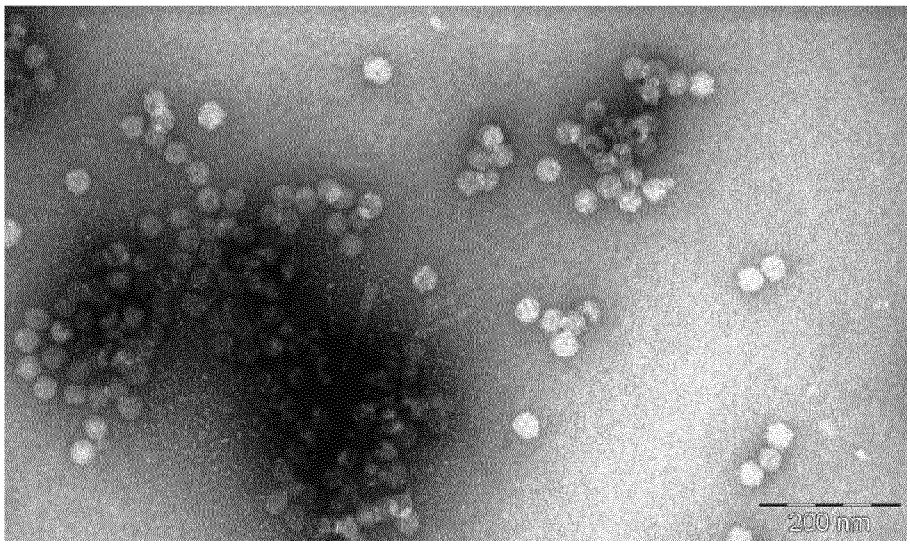


FIG. 23B

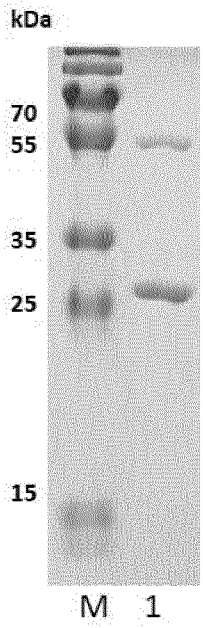


FIG. 23C

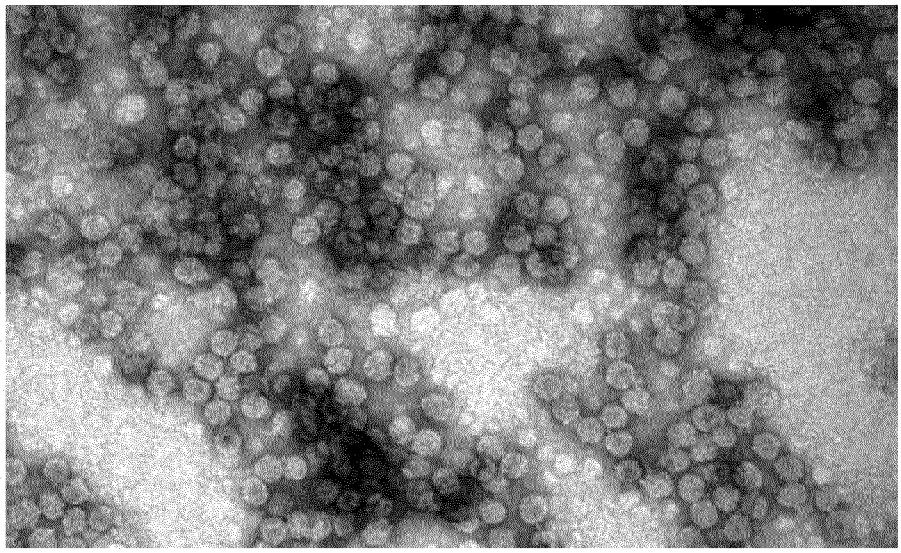


FIG. 23D

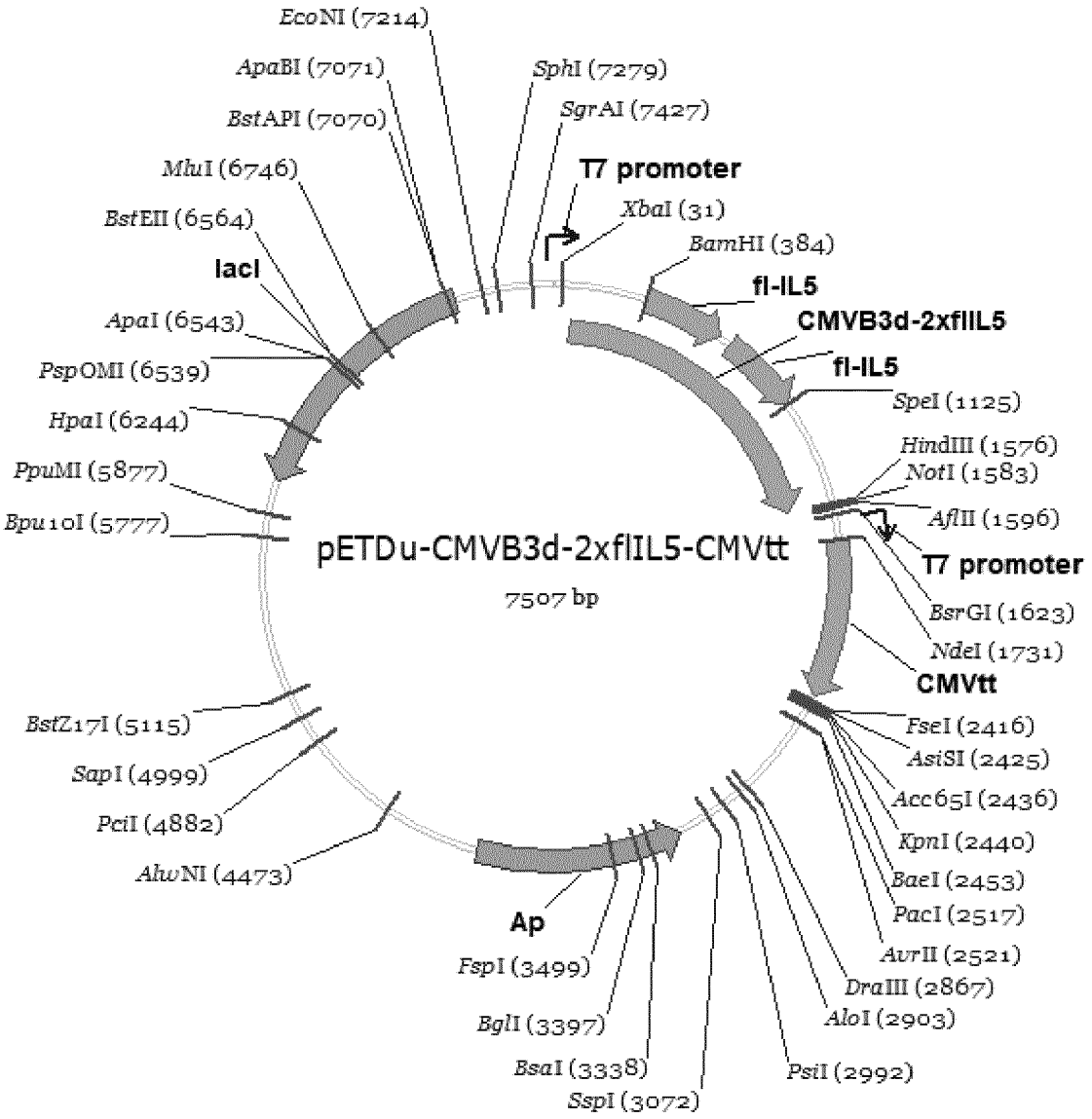

pETDu-CMVB3d-2xflIL5-CMVtt
7507 bp
EcoNI (7214)
ApaBI (7071)
BstAPI (7070)
MluI (6746)
BstEII (6564)
lacI
ApaI (6543)
PspOMI (6539)
HpaI (6244)
PpuMI (5877)
Bpu10I (5777)
BstZ17I (5115)
SapI (4999)
PciI (4882)
AlwNI (4473)
Ap
FspI (3499)
BglI (3397)
BsaI (3338)
SspI (3072)
PsiI (2992)
AloI (2903)
DraIII (2867)
AvrII (2521)
PacI (2517)
BaeI (2453)
KpnI (2440)
Acc65I (2436)
AsiSI (2425)
FseI (2416)
CMVtt
NdeI (1731)
BsrGI (1623)
T7 promoter
AflII (1596)
NotI (1583)
HindIII (1576)
SpeI (1125)
fl-IL5
CMVB3d-2xflIL5
fl-IL5
BamHI (384)
XbaI (31)
T7 promoter
SgrAI (7427)
SphI (7279)

FIG. 24

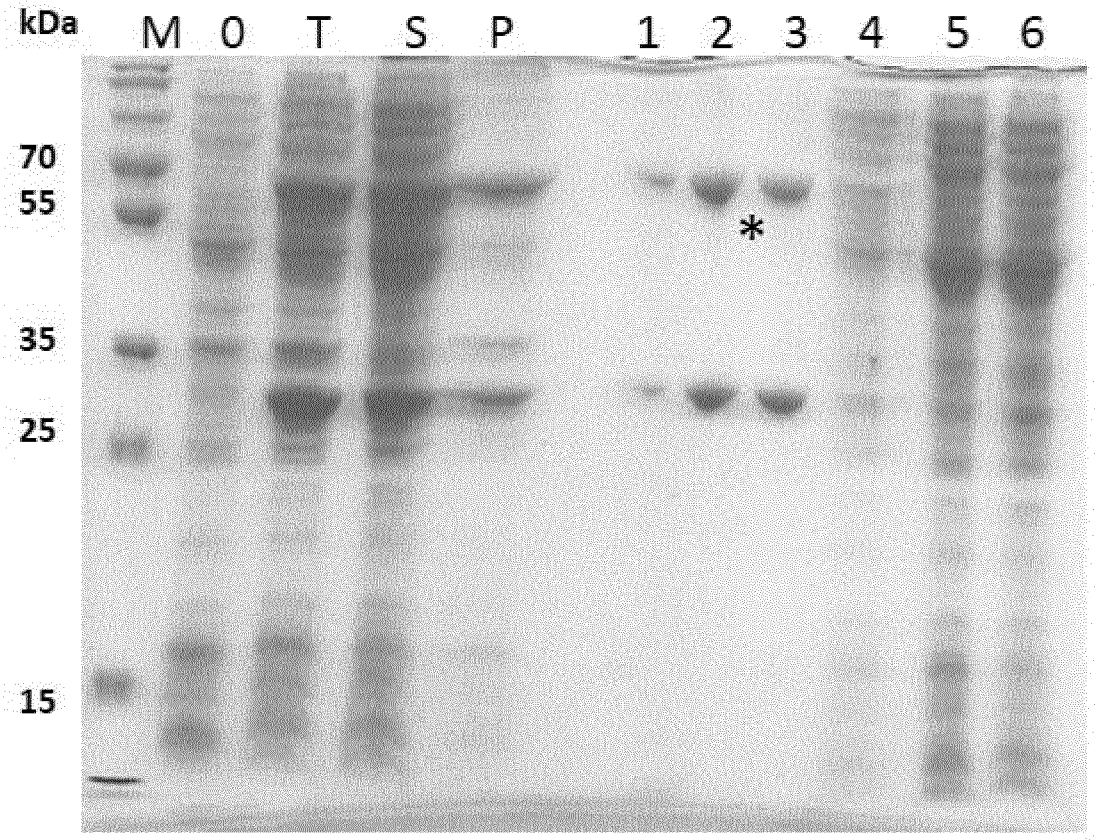


FIG. 25

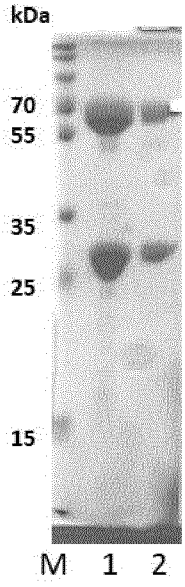


FIG. 26A

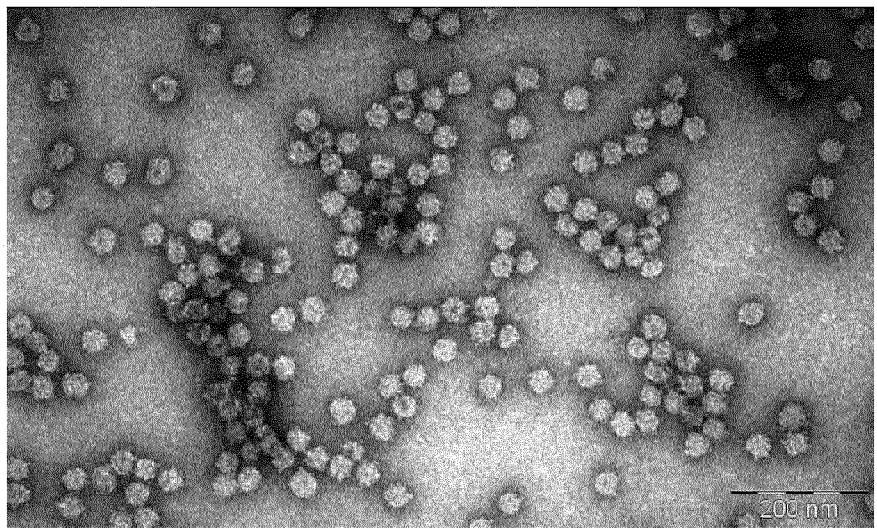


FIG. 26B

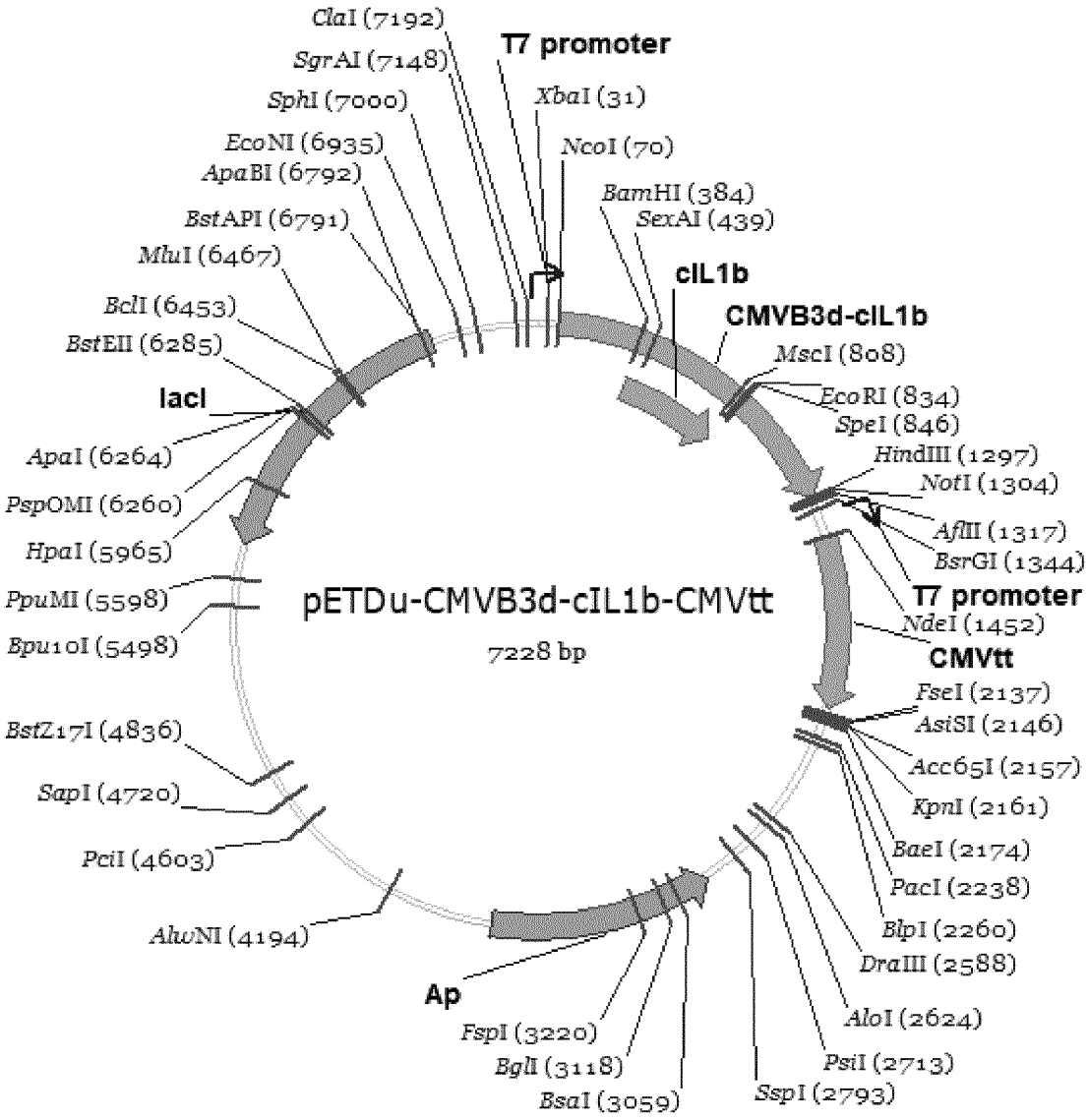

pETDu-CMVB3d-cIL1b-CMVtt
7228 bp
T7 promoter
cIL1b
CMVB3d-cIL1b
T7 promoter
CMVtt
Ap
lacI
ClaI (7192)
SgrAI (7148)
SphI (7000)
EcoNI (6935)
ApaBI (6792)
BstAPI (6791)
MluI (6467)
BclI (6453)
BstEII (6285)
ApaI (6264)
PspOMI (6260)
HpaI (5965)
PpuMI (5598)
Bpu10I (5498)
BstZ17I (4836)
SapI (4720)
PciI (4603)
AlwNI (4194)
FspI (3220)
BglI (3118)
BsaI (3059)
SspI (2793)
PsiI (2713)
AloI (2624)
DraIII (2588)
BlpI (2260)
PacI (2238)
BaeI (2174)
KpnI (2161)
Acc65I (2157)
AsiSI (2146)
FseI (2137)
NdeI (1452)
BsrGI (1344)
AflII (1317)
NotI (1304)
HindIII (1297)
SpeI (846)
EcoRI (834)
MscI (808)
SexAI (439)
BamHI (384)
NcoI (70)
XbaI (31)

FIG. 27

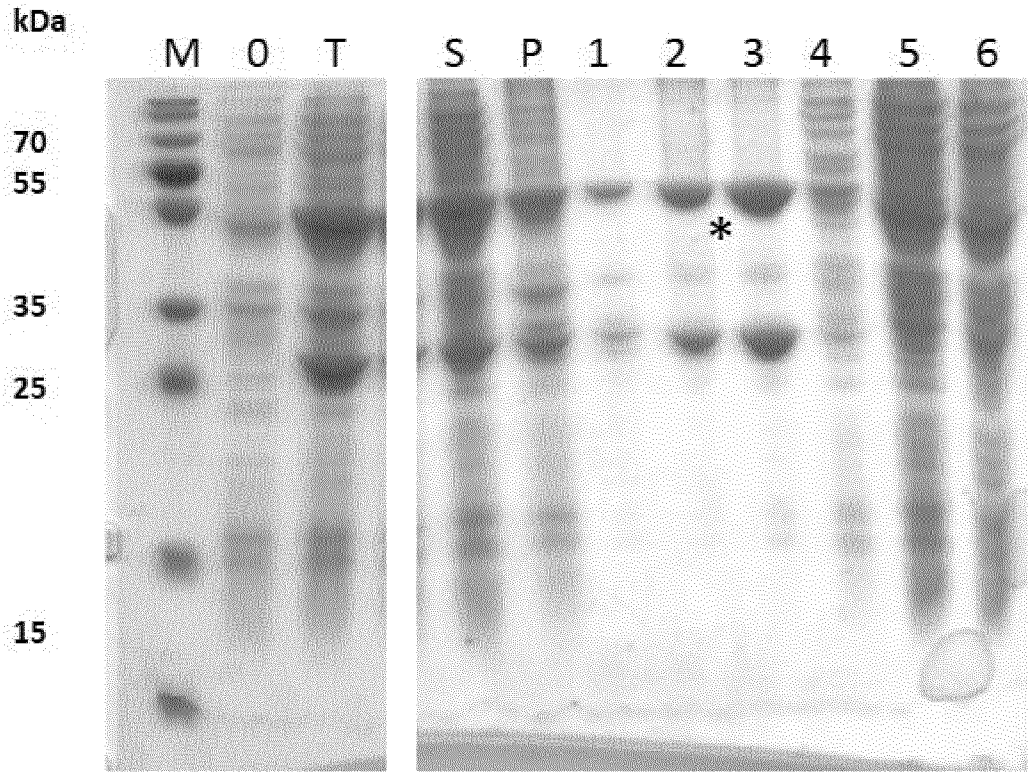


FIG. 28

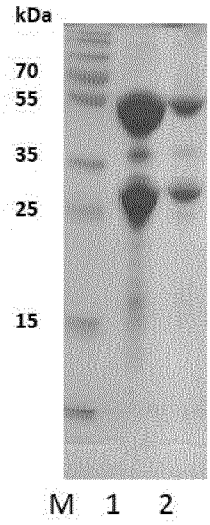


FIG. 29A

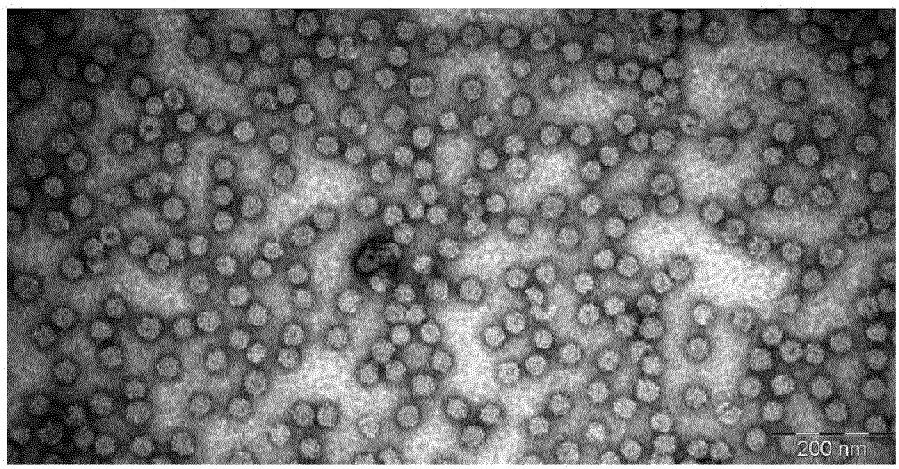


FIG. 29B