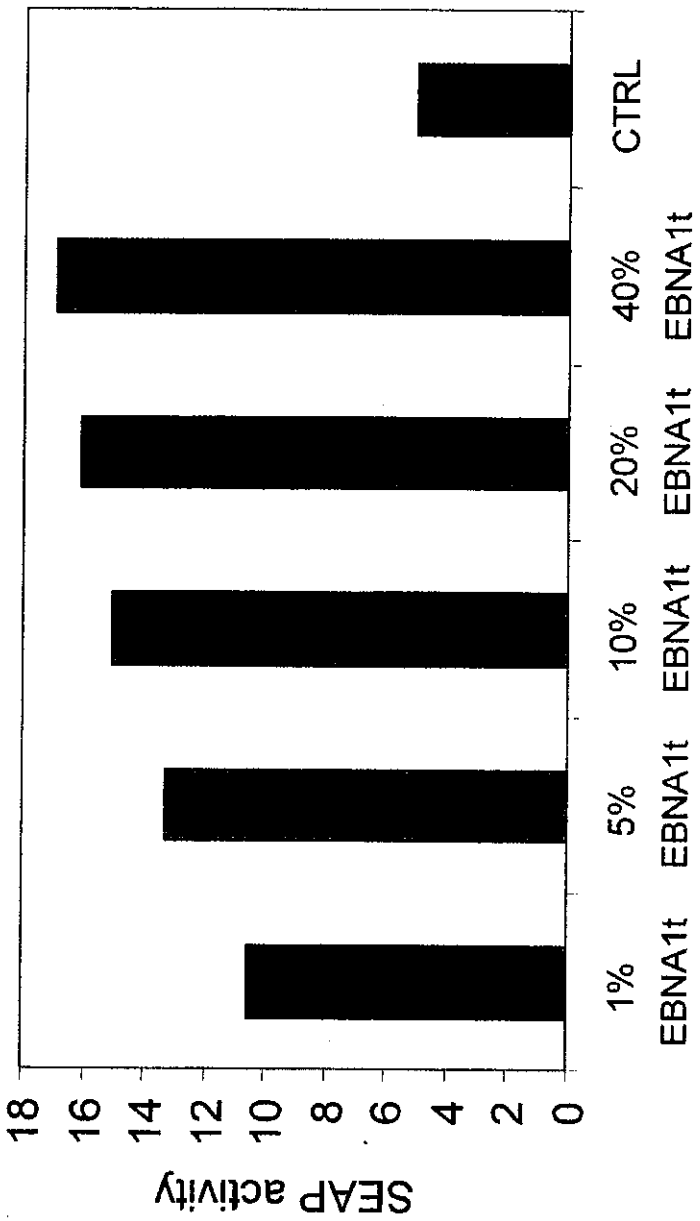


Figure 1: Transient co-expression of truncated EBNA1 (EBNA1t) significantly enhance protein expression in 293F cells

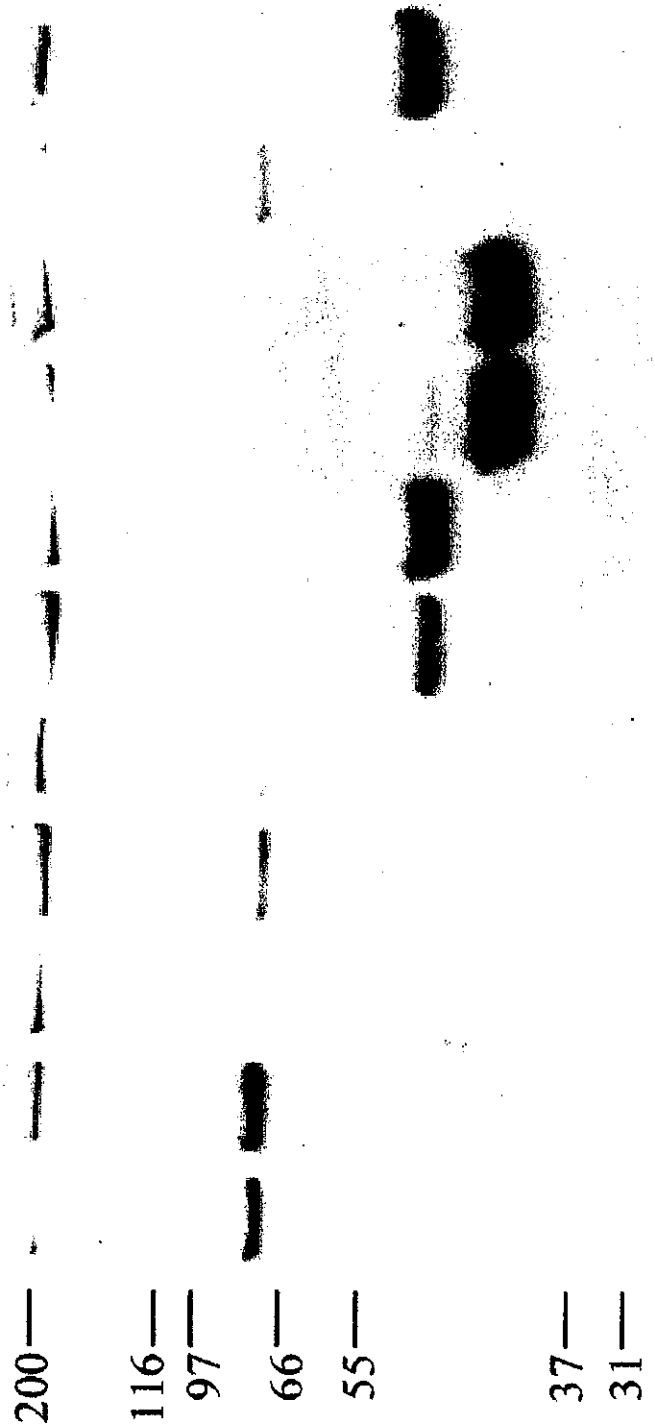


Figure 2: EBNA1 expression HEK293 cells

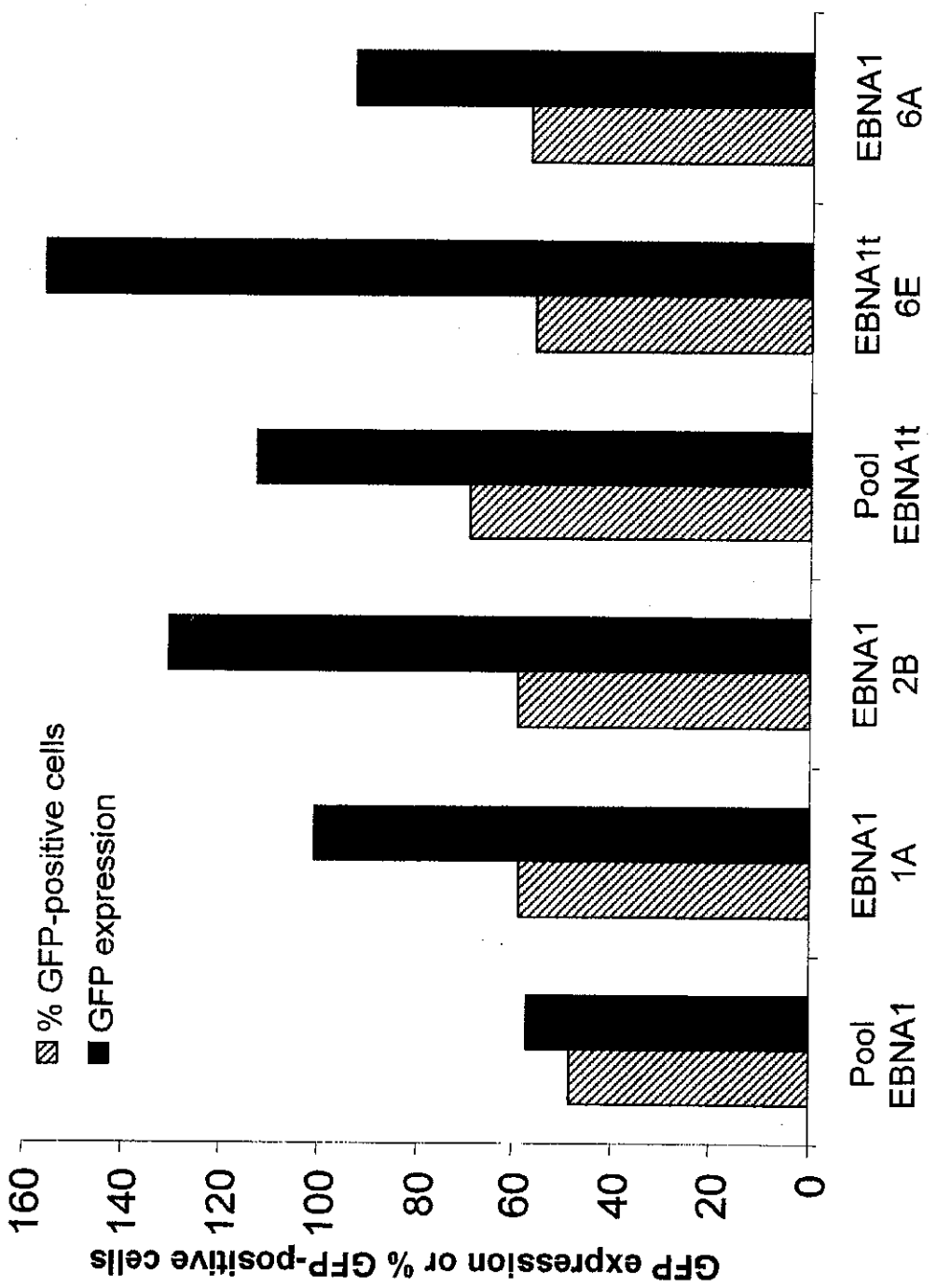


Figure 3: GFP expression following transient transfection of various 293F-EBNA1 cells

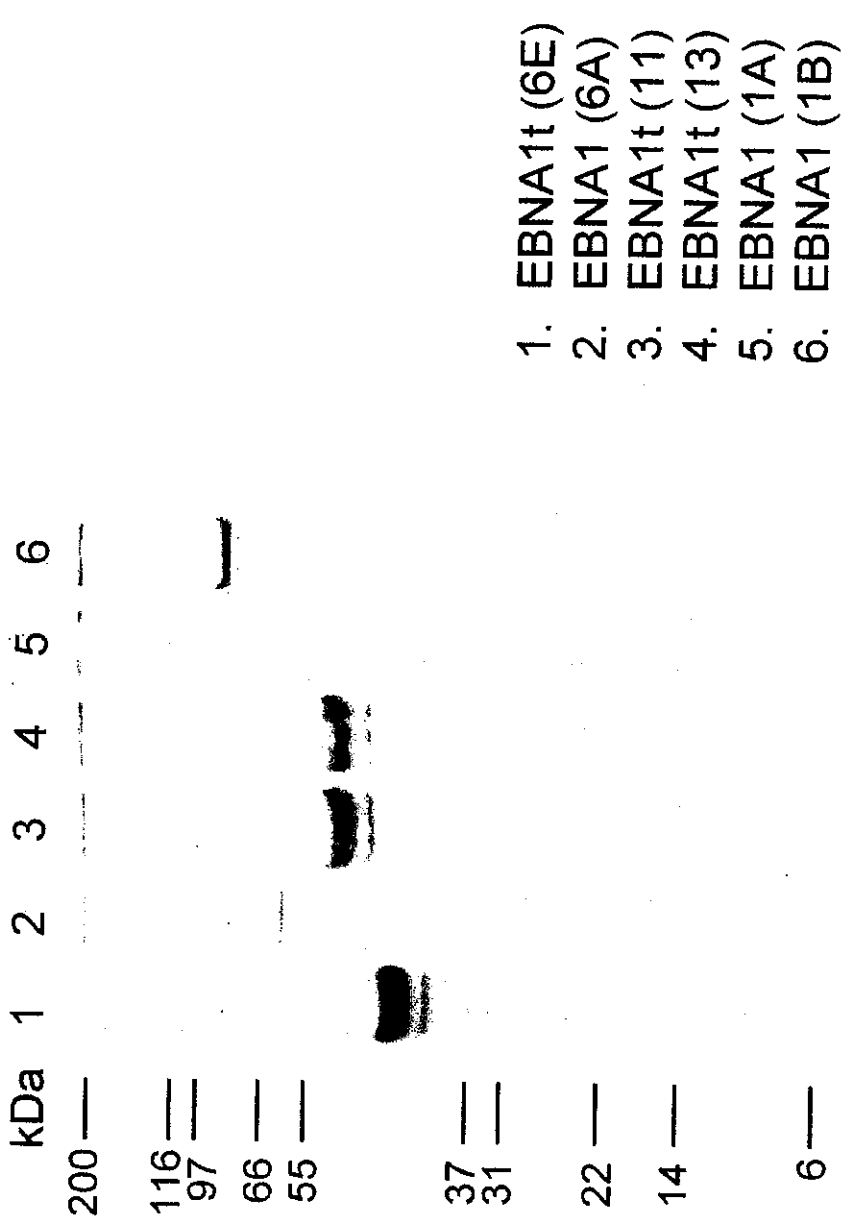


Figure 4: EBNA1 expression in various 293F clones

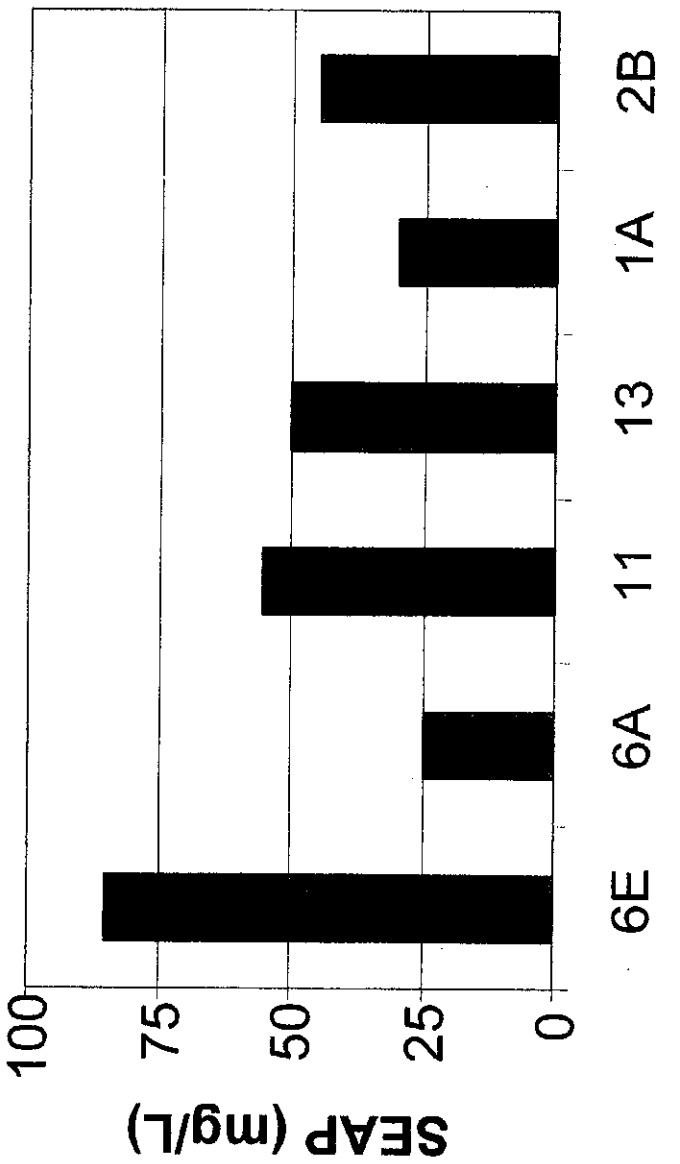


Figure 5: Transient SEAP expression in various 293F-EBNA1 clones.

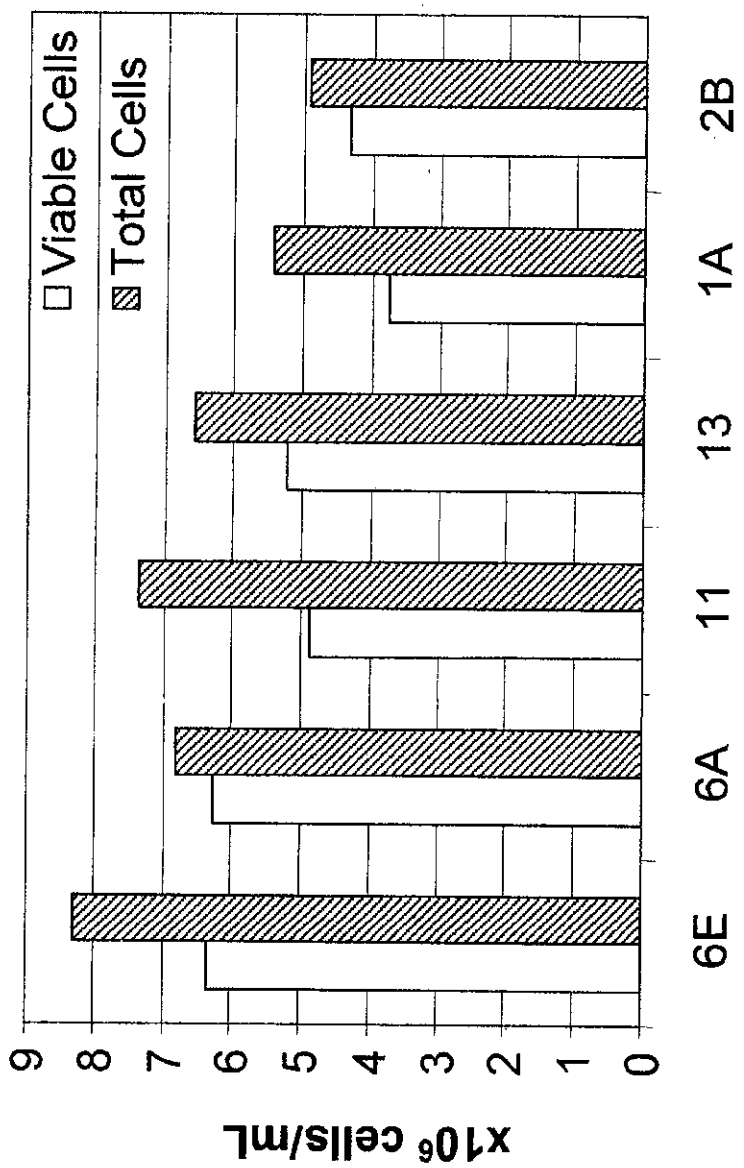


Figure 6: Growth of various 293F-EBNA1 clones measured at 144 hpt.

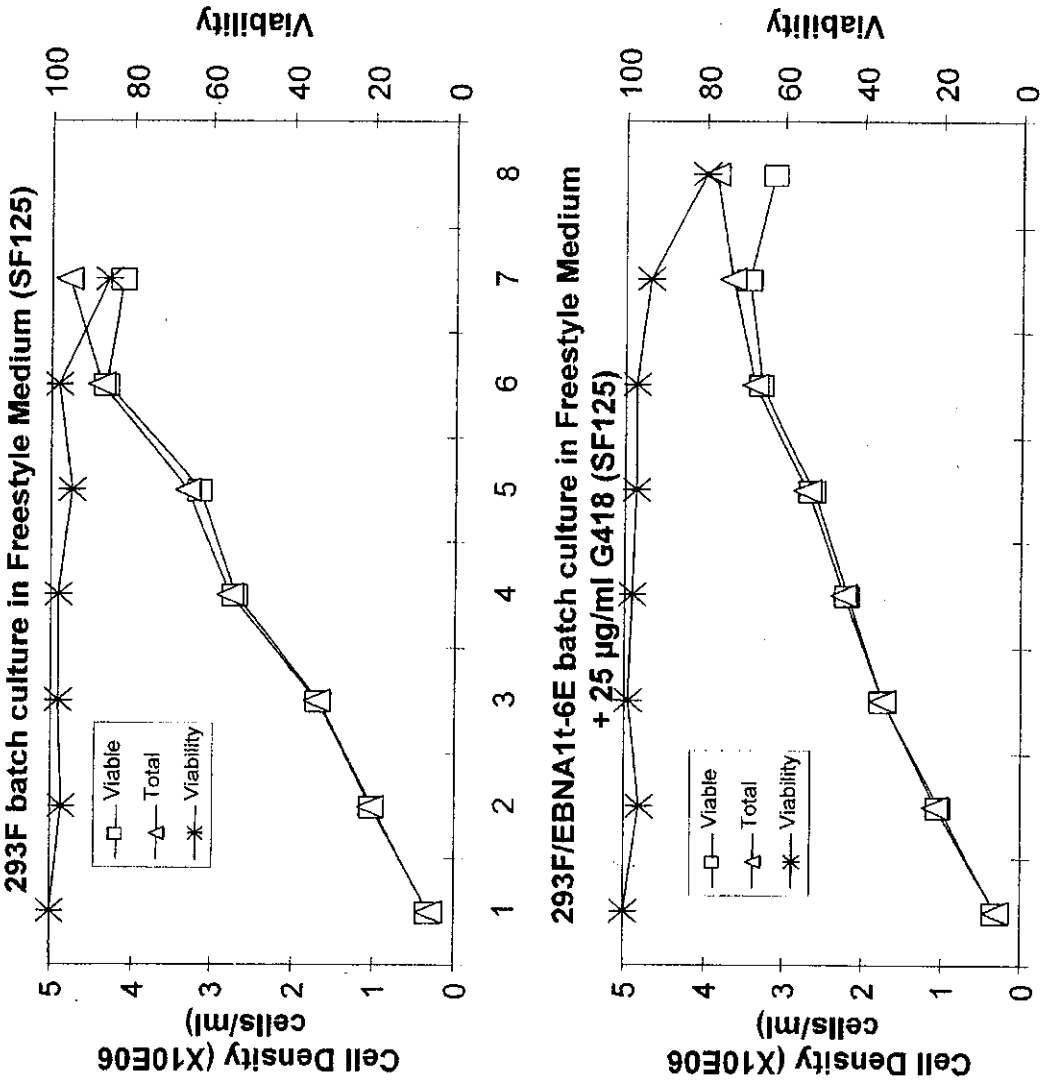


Figure 7: Growth characteristics of 293F (upper panel) and 293FEt (clone 6E, lower panel) cell lines in Freestyle medium.

Fig 8: EBNA1 amino acid sequence

Accession number : NC_001345

1 MSDEGPGTGP GNGLGEKGDT SGPEGSGGSG PQRRGGDNHG RGRGRGRGRG GGRPGAPGGS

Linking Region 1 (33-89)

61 GSGP**RHRDGV RRPQKRPSCI GCKGTHGGT**G AGAGAGGAGA GGAGAGGGAG AGGGAGGAGG

Transcription (65-89)

121 AGGAGAGGGA GAGGGAGGAG GAGAGGGAGA GGGAGGAGAG GGAGGAGGAG AGGGAGAGGG

Gly-Gly-Ala Repeats **(90-327)**

181 AGGAGAGGGA GGAGGAGAGG GAGAGGAGGA GGAGAGGAGA GGGAGGAGGA GAGGAGAGGA

241 GAGGAGAGGA GGAGAGGAGG AGAGGAGGAG AGGGAGGAGA GGGAGGAGAG GAGGAGAGGA

301 GGAGAGGAGG AGAGGGAGAG GAGAGGGGRG RGGSGGRGRG GSGGRGRGGS GGRRGRGRER

Linking Region 2 (328-378)

361 ARGGSRERAR GRGRGRGE**KR PRSPSS**QSSS SGSPPRRPPP GRRPFFHPVG **EADYFEYHQE**

NLS (379-386)

421 GGPDGEPDVP PGAIEQGPAD DPGEGPSTGP RGQGDGGRRK KGGWFGKHRG QGGSNPKFEN

481 IAEGLRALLA RSHVERTTDE GTWVAGVFVY GGSKTSLYNL RRGTALAIPQ CRLTPLSRLP

Dimerization & DNA binding (458-641)

541 FGMAPGPGPQ PGPLRESIVC YFMVFLQTHI FAEVLKDAIK DLVMTKPAPT CNIRVTVCSF

601 DDGVDLPPWF PPMVEGAAAE GDDGDDGDEG GDGDEGEEGQ E

Fig 9: EBNA1, EBNA1t & EBNA1c

1 MSDEGPGTGP GNGLGEKGDT SGPEGSGGSG PQRRGGDNHG RGRGRGRGRG GGRPGAPGGS

61 GSGPRHRDGV RRPQKRPSCI GCKGTHGGTG AGAGAGGAGA GGAGAGGGAG AGGGAGGAGG

121 AGGAGAGGGA GAGGGAGGAG GAGAGGGAGA GGGAGGAGAG GGAGGAGGAG AGGGAGAGGG

181 AGGAGAGGGA GGAGGAGAGG GAGAGGAGGA GGAGAGGAGA GGGAGGAGGA GAGGAGAGGA

241 GAGGAGAGGA GGAGAGGAGG AGAGGAGGAG AGGGAGGAGA GGGAGGAGAG GAGGAGAGGA

M

301 GGAGAGGAGG AGAGGGAGAG GAGAGGGGRG RGGSGG**RGRG GSGGRGRGGS GGRRGRGRER**

361 **ARGGSRERAR GRGRGRGEKR PRSPSSQSSS SGSPPRRPPP GRRPFFHPVG EADYFEYHQE**

421 **GGPDGEPDVP PGAIEQGPAD DPGEGPSTGP RGQGDGGRRK KGGWFGKHRG QGGSNPKFEN**

481 **IAEGLRALLA RSHVERTTDE GTWVAGVFVY GGSKTSLYNL RRGTALAIPQ CRLTPLSRLP**

541 **FGMAPGPGPQ PGPLRESIVC YFMVFLQTHI FAEVLKDAIK DLVMTKPAPT CNIRVTVCSF**

601 **DDGVDLPPWF PPMVEGAAAE GDDGDDGDEG GDGDEGEEGQ E**

Fig 10: Schematic structure of EBNA1 constructs

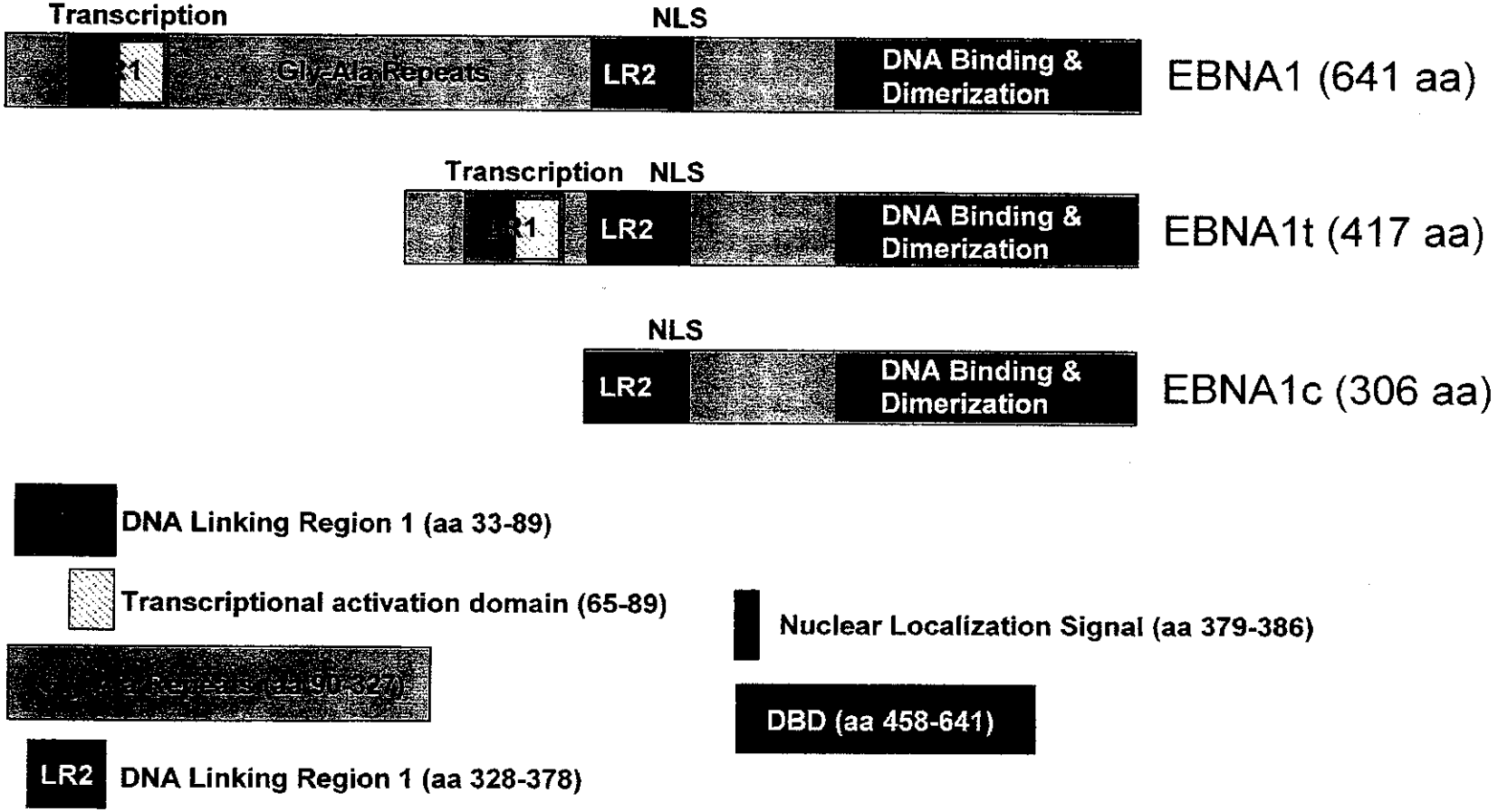


Fig 11A: EBNA1 DNA sequence

```
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71   aaggctccgg cggcagtgga cctcaaagaa gaggggtga taaccatgga cgaggacggg gaagaggacg
141  aggacgagga ggcggaagac caggagcccc gggcggctca ggatcagggc caagacatag agatggtgtc
211  cggagacccc aaaaacgtcc aagttgcatt ggctgcaaag ggacccacgg tggaacagga gcaggagcag
281  gagcgggagg ggcaggagca ggaggggcag gagcaggagg aggggcagga gcaggaggag gggcaggagg
351  ggcaggaggg gcaggagggg caggagcagg aggaggggca ggagcaggag gaggggcagg aggggcagga
421  ggggcaggag caggaggagg ggcaggagca ggaggagggg caggaggggc aggagcagga ggaggggcag
491  gaggggcagg aggggcagga gcaggaggag gggcaggagc aggaggaggg gcaggagggg caggagcagg
561  aggaggggca ggaggggcag gaggggcagg agcaggagga ggggcaggag caggaggggc aggaggggca
631  ggaggggcag gagcaggagg ggcaggagca ggaggagggg caggaggggc aggaggggca ggagcaggag
701  gggcaggagc aggaggggca ggagcaggag gggcaggagc aggaggggca ggaggggcag gagcaggagg
771  ggcaggaggg gcaggagcag gaggggcagg aggggcagga gcaggaggag gggcaggagg ggcaggagca
841  ggaggagggg caggaggggc aggagcagga ggggcaggag gggcaggagc aggaggggca ggaggggcag
911  gagcaggagg ggcaggaggg gcaggagcag gaggaggggc aggagcagga ggggcaggag caggaggtgg
981  aggccggggt cgaggaggca gtggaggccg gggtcgagga ggtagtggag gccggggtcg aggaggtagt
1051 ggaggccgcc ggggtagagg acgtgaaaga gccaggggag gaagtcgtga aagagccagg gggagaggtc
1121 gtggacgtgg agaaaagagg cccaggagtc ccagtagtca gtcatcatca tccgggtctc caccgcgcag
1191 gccccctcca ggtagaaggc catttttcca ccctgtaggg gaagccgatt attttgaata ccaccaagaa
1261 ggtggcccag atggtgagcc tgacgtgccc ccgggagcga tagagcaggg ccccgcagat gacccaggag
1331 aaggcccaag cactggaccc cggggtcagg gtgatggagg caggcgcaaa aaaggagggt ggtttggaaa
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1471 aggagtcacg tagaaaggac taccgacgaa ggaacttggg tcgccggtgt gttcgtatat ggaggtagta
1541 agacctccct ttacaaccta aggcgaggaa ctgcccttgc tattccacaa tgtcgtctta caccattgag
1611 tcgtctcccc tttggaatgg cccctggacc cggcccacaa cctggcccgc taagggagtc cattgtctgt
1681 tatttcatgg tcttttttaca aactcatata tttgctgagg ttttgaagga tgcgattaag gaccttgtta
1751 tgacaaagcc cgctcctacc tgcaatatca gggtgactgt gtgcagcttt gacgatggag tagatttgcc
1821 tccctggttt ccacctatgg tggaaggggc tgccgcggag ggtgatgacg gagatgacgg agatgaagga
1891 ggtgatggag atgagggtga ggaagggcag gagtga
```

Fig 11B: EBNA1t DNA sequence

```
1     atgtctgacg agggccagg tacaggacct ggaaatggcc taggagagaa gggagacaca tctggaccag
71    aaggctccgg cggcagtgga cctcaaagaa gaggggtga taaccatgga cgaggacggg gaagaggacg
141   aggacgagga ggcggaagac caggagcccc gggcggctca ggatcagggc caagacatag agatggtgtc
211   cggagacccc aaaaacgtcc aagttgcatt ggctgcaaag ggacccacgg tggaacagga gcaggagcag
281   gagcgggagg ggcaggagca ggaggtggag gccgggtcg aggaggcagt ggaggccggg gtcgaggagg
351   tagtggaggc cggggtcgag gaggtagtgg aggccgccgg ggtagaggac gtgaaagagc caggggggga
421   agtcgtgaaa gagccagggg gagaggtcgt ggacgtggag aaaagaggcc caggagtccc agtagtcagt
491   catcatcatc cgggtctcca ccgcgcaggc cccctccagg tagaaggcca ttttccacc ctgtagggga
561   agccgattat ttgaatacc accaagaagg tggcccagat ggtgagcctg acgtgccccc gggagcgata
631   gagcagggcc ccgcagatga cccaggagaa ggcccaagca ctggaccccg gggtcaggat gatggaggca
701   ggcgcaaaaa aggagggtgg tttggaaagc atcgtggtca aggaggttcc aacccgaaat ttgagaacat
771   tgcagaaggt ttaagagctc tcctggctag gagtcacgta gaaaggacta ccgacgaagg aacttgggtc
841   gccggtgtgt tcgtatatgg aggtagtaag acctcccttt acaacctaag gcgaggaact gcccttgcta
911   ttccacaatg tcgtcttaca ccattgagtc gtctcccctt tggaatggcc cctggacccg gcccacaacc
981   tggcccgcta agggagtcca ttgtctgtta ttttcatggtc tttttacaaa ctcatatatt tgctgaggtt
1051  ttgaaggatg cgattaagga ccttgttatg acaaaagcccg ctcctacctg caatatcagg gtgactgtgt
1121  gcagctttga cgatggagta gatttgcctc cctggtttcc acctatggtg gaaggggctg ccgcggaggg
1191  tgatgacgga gatgacggag atgaaggagg tgatggagat gagggtgagg aagggcagga gtga
```

Fig 11C: EBNA1c DNA sequence

```
1   atgcggggtc gaggaggtag tggaggccgg ggtcgaggag gtagtggagg ccgccggggt agaggacgtg
71  aaagagccag ggggggaagt cgtgaaagag ccaggggggag aggtcgtgga cgtggagaaa agaggcccag
141 gagtcccagt agtcagtcat catcatccgg gtctccaccg cgcaggcccc ctccaggtag aaggccattt
211 ttccaccctg taggggaagc cgattatttt gaataccacc aagaaggtgg cccagatggt gagcctgacg
281 tgcccccggg agcgatagag cagggccccg cagatgaccc aggagaaggc ccaagcactg gaccccgggg
351 tcagggtgat ggaggcaggc gcaaaaaagg agggtggttt ggaaagcatc gtggtcaagg aggttccaac
421 ccgaaatttg agaacattgc agaaggttta agagctctcc tggctaggag tcacgtagaa aggactaccg
491 acgaaggaac ttgggtcgcc ggtgtgttcg tatatggagg tagtaagacc tccctttaca acctaaggcg
561 aggaactgcc cttgctattc cacaatgtcg tcttacacca ttgagtcgtc tccccttgg aatggcccct
631 ggacccggcc cacaacctgg cccgctaagg gagtccattg tctgttattt catggtcttt ttacaaactc
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841 ggggctgccg cggagggtga tgacggagat gacggagatg aaggaggtga tggagatgag ggtgaggaag
911 ggcaggagtg a
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Figure 12: Transient EBNA1t and EBNA1c expression in 293F cells.

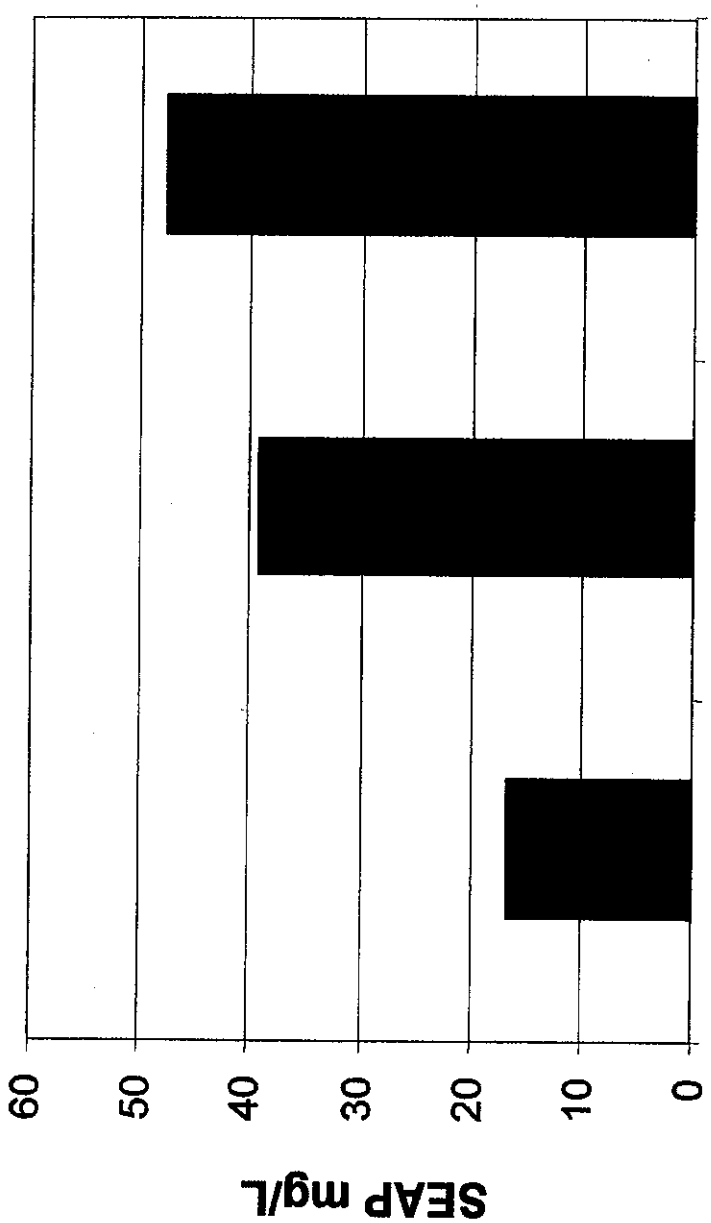


Figure 13: Effect of co-expressing EBNA1t or EBNA1c on transient SEAP expression in 293F cells.

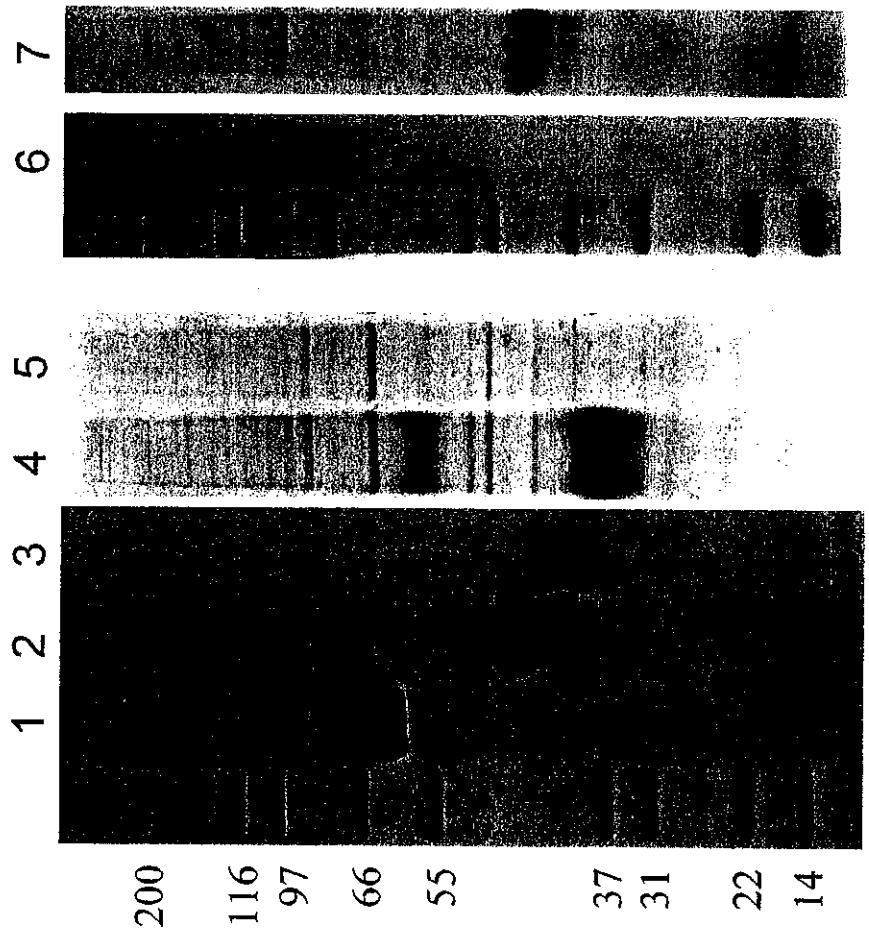


Figure 14: Transient expression of various secreted r-proteins in 293-6E cells using the pTT vector