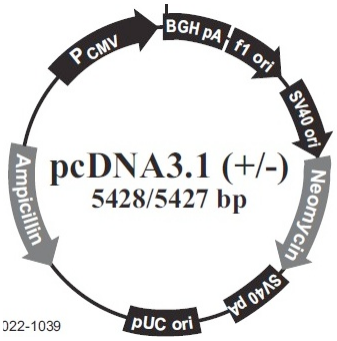
Mammalian Cell types at the PEC

- Human Embryonic Kidney (HEK)
  - Isolated approx. 30 years ago following transformation of HEK cells with sheared DNA adenovirus 5
  - Stably express adenovirus 13 S E1a protein which enhances transcription from a CMV promoter
  - Can be adherent (typically 293T cells) or suspension, as in our 293F and 293-6E

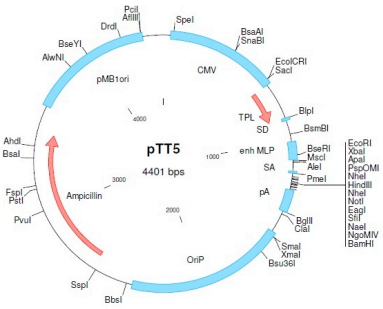
- HEK 293F.
  - Fast growing variant of the 293 cell line. Adapted for suspension culture in serum-free media.
  - Robust. They can tolerate densities of up to 3×10^6 cells/mL and still recover well.
  - Free to use and distribute for academic research

- HEK 293T.
  - Well suited for adherent culture. However, we have a line that we adapted for suspension also.
  - Stably expressing SV40 large T antigen, which enhances episomal replication of plasmids containing an SV40 origin of replication



Source: Invitrogen pcDNA 3.1 handbook, Version J, 8/2008. p. 10

- HEK 293-6E.
  - Proprietary cell line from the National Research Council of Canada.
  - Variant of HEK 293EBNA1 that expresses a truncated, but functional form of EBNA1.
  - EBNA1 enhances replication of plasmids containing an origin of replication called oriP
  - Resistance to Geneticin is conferred by the neo gene, allowing for antibiotic selection of this line



Source: NRC Biotechnology Research Institute pTT5 vector map. PDF file.