

# Supporting Information

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TM26.U1    MACIMMVHNFLLSVISHIVLVMGVMVA~~YW~~  
TM26.U2    MANLLVIVCVVVVDIVLTGHAVMYIVP~~YW~~  
TM26.U3    MA**FPFPVLLVFL**FILILVVRDLVVLPL~~YW~~  
TM26.U4    MA**AVLSLV**LAVRIIVGFVIFVILLVY~~YW~~  
TM26.U5    MAVVLVTVPATVILILVGLIVVVLFV~~IYW~~  
TM26.U6    MA**AVFVIDPLV**FVNLLLFLLLLFLV~~FLYW~~  
TM26.U7    MAPVVPFAHLVLI~~PVMVAFVVIFILSLYW~~

Fig. S1. Sequence of unselected clones. Amino acid sequences of representative clones selected at random from the UDv3 library. Randomized segment shown in bold. None of these sequences induced focus formation in C127 cells.

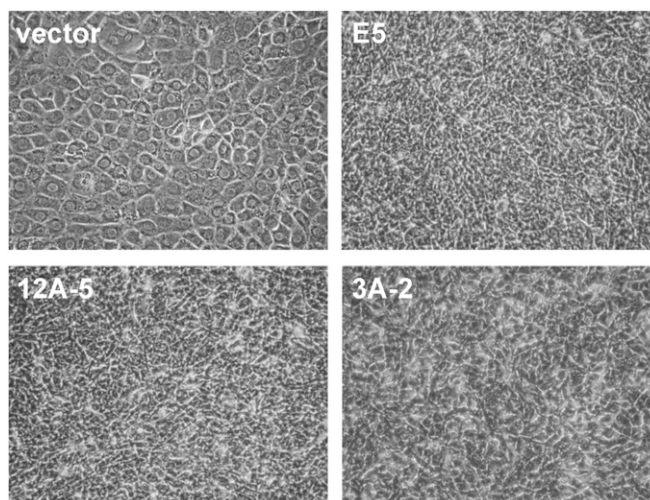
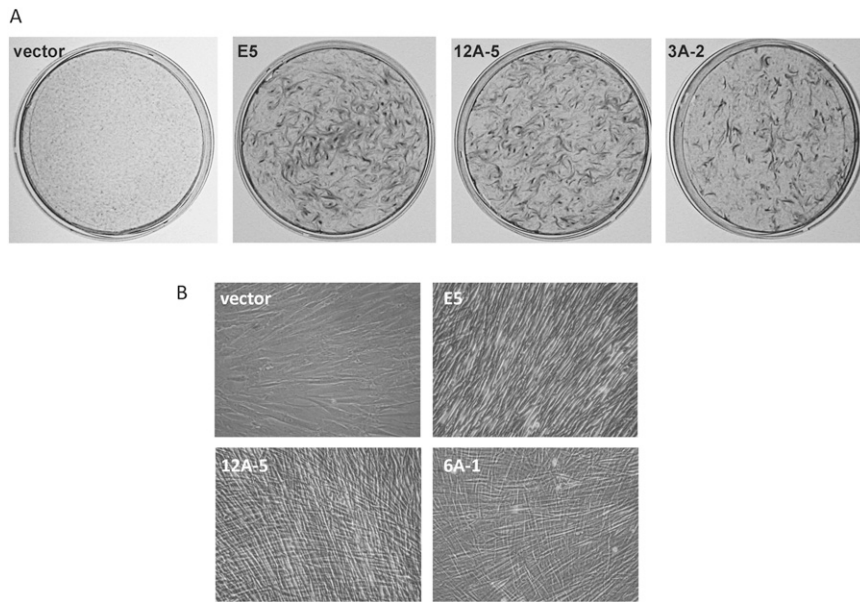
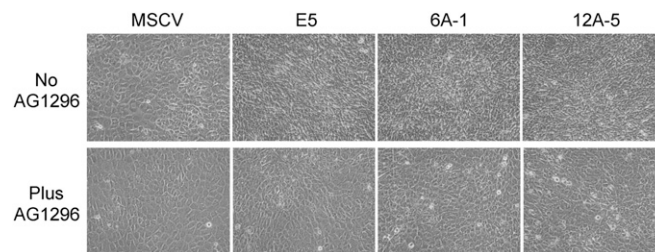


Fig. S2. Morphology of transformed cells. Photomicrographs of C127 cells stably expressing empty vector, E5, or the indicated traptamer. (Magnification: 20x.)



**Fig. S3.** Small transmembrane proteins transform human foreskin fibroblasts (HFFs). (A) Primary HFFs were infected with empty retroviral vector or a virus expressing the E5 protein or the indicated traptamer and incubated to allow focus formation. Plates stained after 21 d are shown. (B) Photomicrographs of HFFs stably expressing empty vector, E5, or the indicated traptamer. (Magnification: 20 $\times$ .)



**Fig. S4.** Platelet-derived growth factor receptor activity is required for fibroblast transformation. Normal C127 cells harboring the empty MSCV-puro vector or cells transformed by the E5 protein, 6A-1, or 12A-5 were incubated in the presence (lower images) or absence (upper images) of 20  $\mu$ g/mL AG1296.

## Other Supporting Information Files

[SI Appendix \(DOCX\)](#)

[Table S1 \(DOC\)](#)