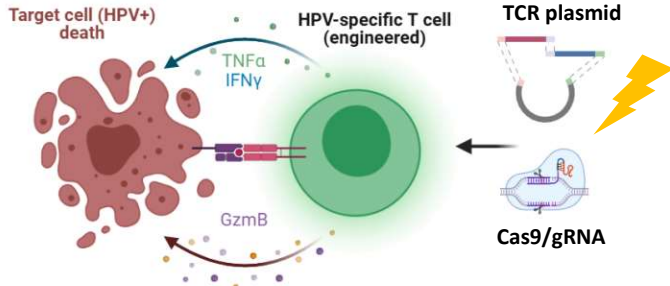
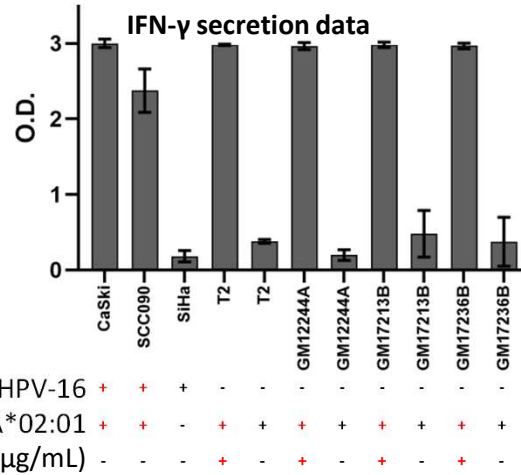


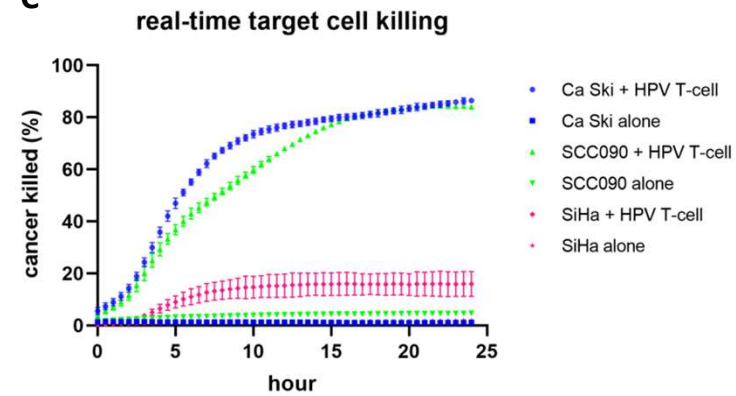
A



B

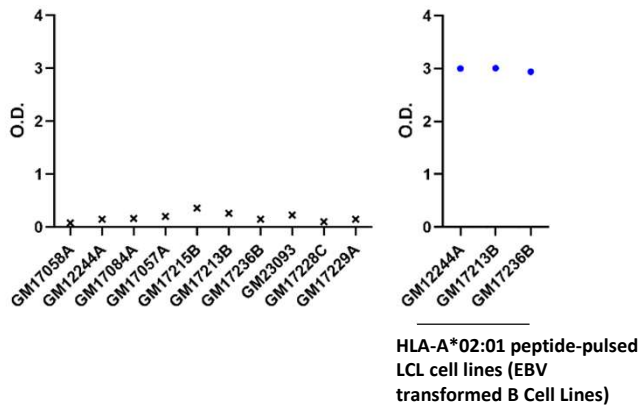


C



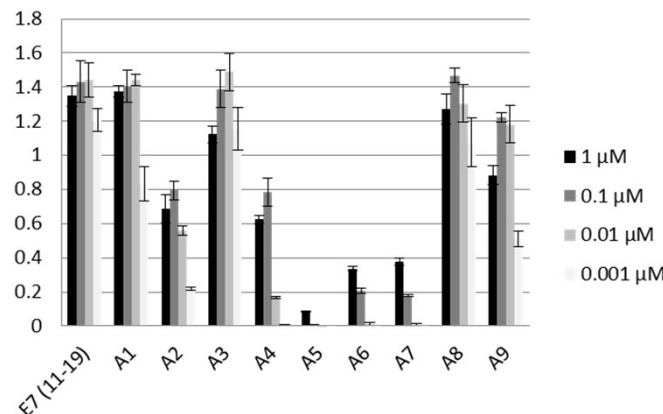
D

Alloreactivity test



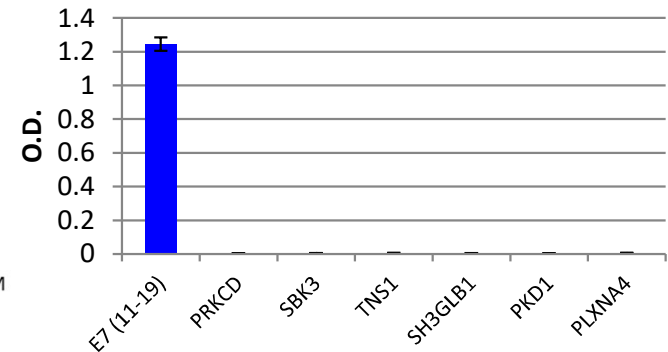
E

Alanine scan



F

Cross-reactivity test



Validation of HPV-16 E7 HLA-A*02:01-specific HPV-TCR T cells. A) Non viral single-Step TCR precision genome editing process enables the production of HPV-specific T cells B) Selective IFN-γ secretion of TCR.A2.1756 against HLA-matched HPV-16⁺ cancer cells or peptide-pulsed target cells. C) Specific killing of HLA-matched HPV-16 tumor cells by TCR.A2.1756 T cells D) TCR alloreactivity assessed against a limited panel of EBV-transformed B cell lines representing diverse HLA alleles E) Serial alanine substitutions to the E7₁₁₋₁₉ target peptide revealed positions 4-7 to be the most crucial for recognition by TCR.A2.1756 F) Human peptides with sequence overlap to the HPV 16-E7₁₁₋₁₉ epitope are tested for cross-reactivity