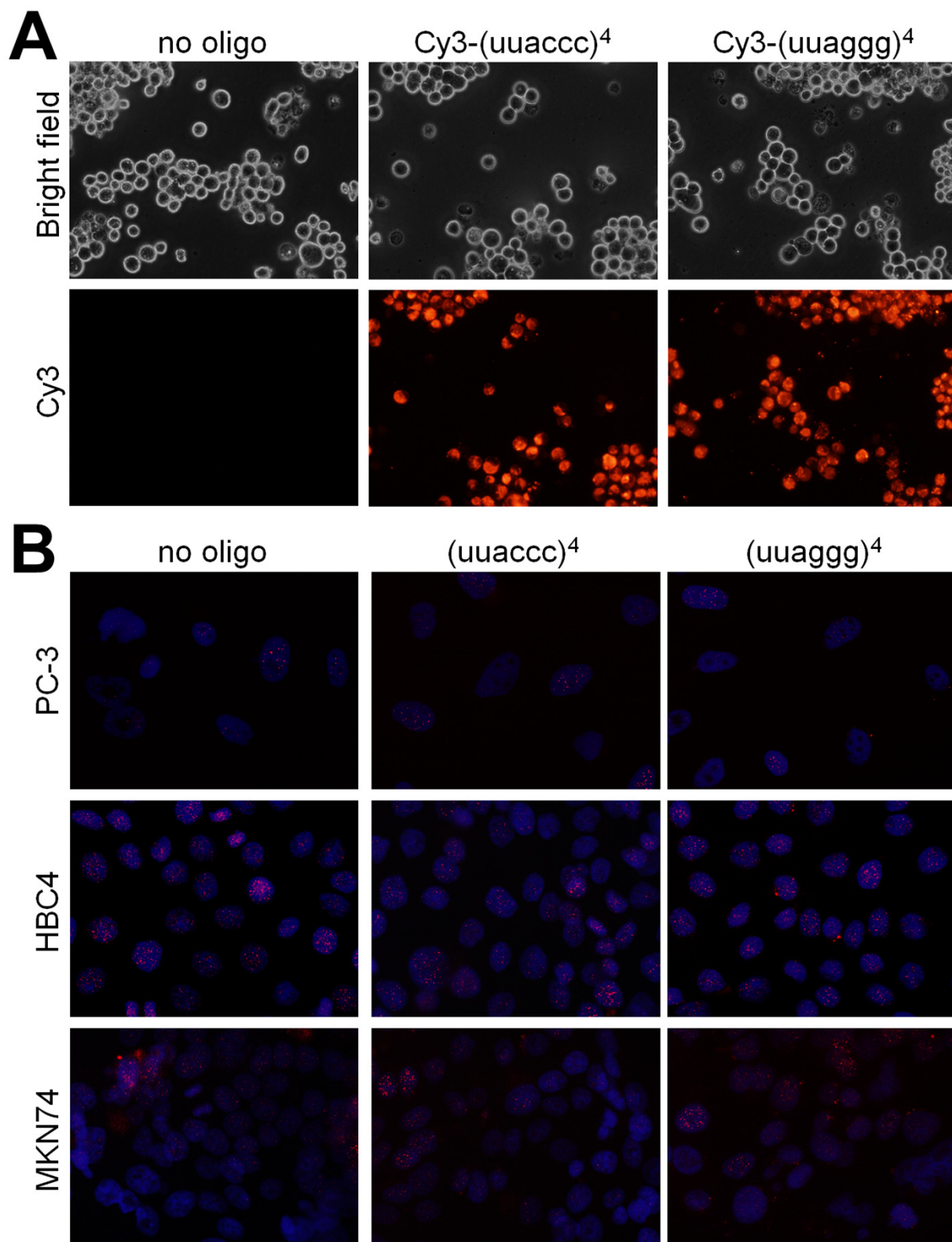
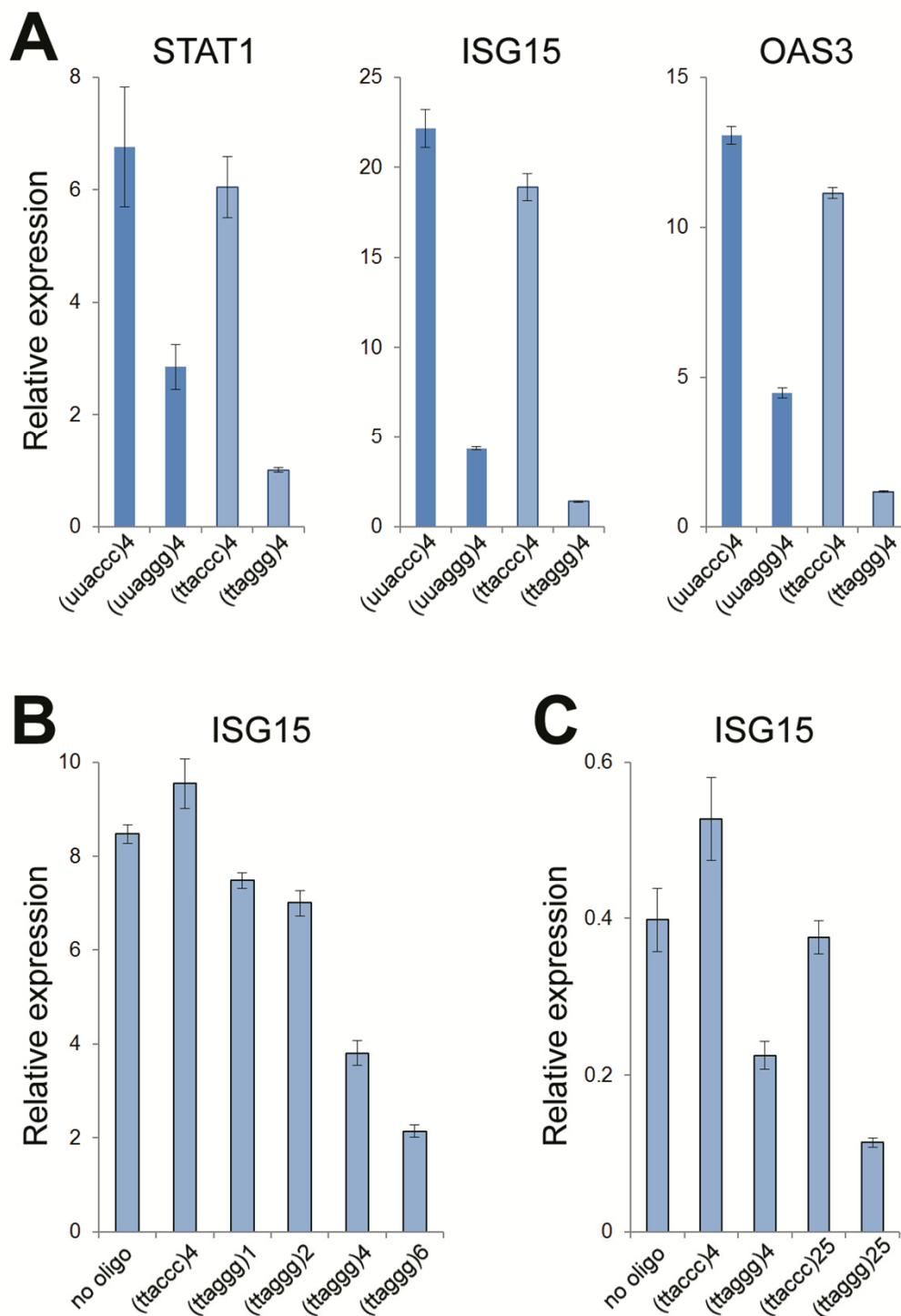


**Figure S1. Northern blot analysis of RNAs from 2D cultures and xenograft tumors.** No signals were observed after RNase A treatment, indicating that these signals were derived from TERRA rather than from telomere DNA.



**Figure S2. Synthetic RNA oligonucleotides were efficiently introduced into cells and did not affect telomere length.** (A) Cy3 (red)-labeled control and telomeric RNA oligonucleotides were transfected to PC-3 cells. After 72 h incubation, efficient and similar transfection efficiencies were confirmed by fluorescence microscopy. (B) RNA oligonucleotide-transfected cells were culture for 72 h and subjected to telomere FISH analysis. There was no substantial difference in intensity of the telomeric signals (red). DNA was counterstained with DAPI (blue).



**Figure S3. Synthetic telomeric DNA suppressed the expression of specific genes depending on the number of telomeric six-nucleotide repeating sequence.**

(A) Relative expression levels of STAT1, ISG15, and OAS3 mRNA in 24mer telomeric and control oligonucleotide-transfected PC-3 cells in 3D cultures were analyzed by qPCR and normalized to ACTB mRNA levels. 24mer telomeric DNA suppressed the expression of three marker genes as well as 24mer telomeric RNA in PC-3 cells. (B)(C) Relative expression levels of ISG15 mRNA in PC-3 cells transfected with control and telomeric DNA oligonucleotides at various lengths (6mer, 12mer, 24mer, 36mer, and 150mer) and cultured in 3D. Gene expression was analyzed by qPCR and normalized to ACTB mRNA levels. Four telomeric repeats were required for ISG15 suppression in PC-3 cells.