

Figure S1. Schematic for ID8-T6 tumor cell line generation.

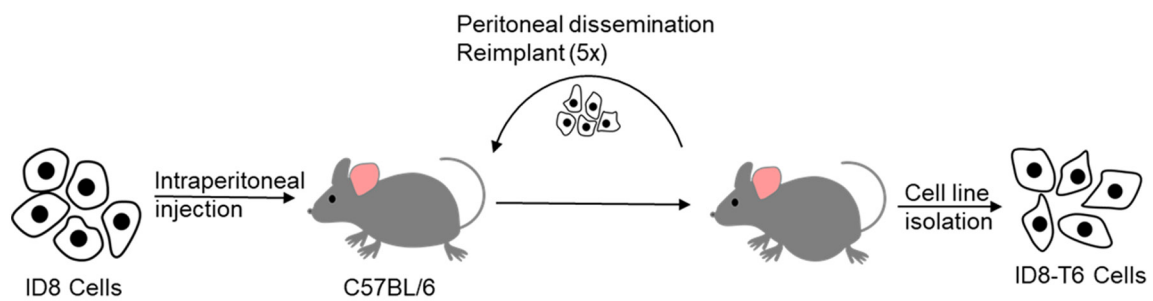


Figure S2. IL-33 is highly expressed in ID8-T6, a cell line that easily forms peritoneal carcinomatosis. (A) On day 45 after injection, ID8-WT and ID8-T6 tumor-bearing mice were sacrificed. More ascitic fluid was accumulated and peritoneal dissemination had spread in ID8-T6 compared to ID8-WT. (B) The Kaplan-Meier curves and log-rank test for overall survival analysis of ID8-WT or ID8-T6 tumor-bearing mice ( $n=6$  for each group),  $P=0.002$ . (C) Cell proliferation was measured over 3 days for ID8-WT and ID8-T6 cells plated onto 96-well plates using the MTT assay. Data are presented as absorbance at optical density (OD) of 490 nm. (D) Expression of 10 genes (IL-6, IL-8, IL-13, IL-33, IL1RL1, TGF- $\beta$ 1, HB-EGF, VEGF $\alpha$ , CCL5 and PTGER2) by RT-qPCR of ID8-WT and ID8-T6 cells ( $n=4$  for each group). (E) Western blot analysis of expression of IL-33 in ID8-WT and ID8-T6 cells. Actin indicates loading levels. (F) Peritoneal dissemination of ID8-WT and ID8-T6 tumor cells stained with anti-IL-33 antibodies. IL, interleukin; IL1RL1, interleukin 1 receptor like 1; TGF- $\beta$ 1, transforming growth factor  $\beta$ 1; HB-EGF, heparin binding EGF like growth factor; VEGF $\alpha$ , vascular endothelial growth factor  $\alpha$ ; CCL5, C-C motif chemokine ligand 5; PTGER2, prostaglandin E receptor 2..

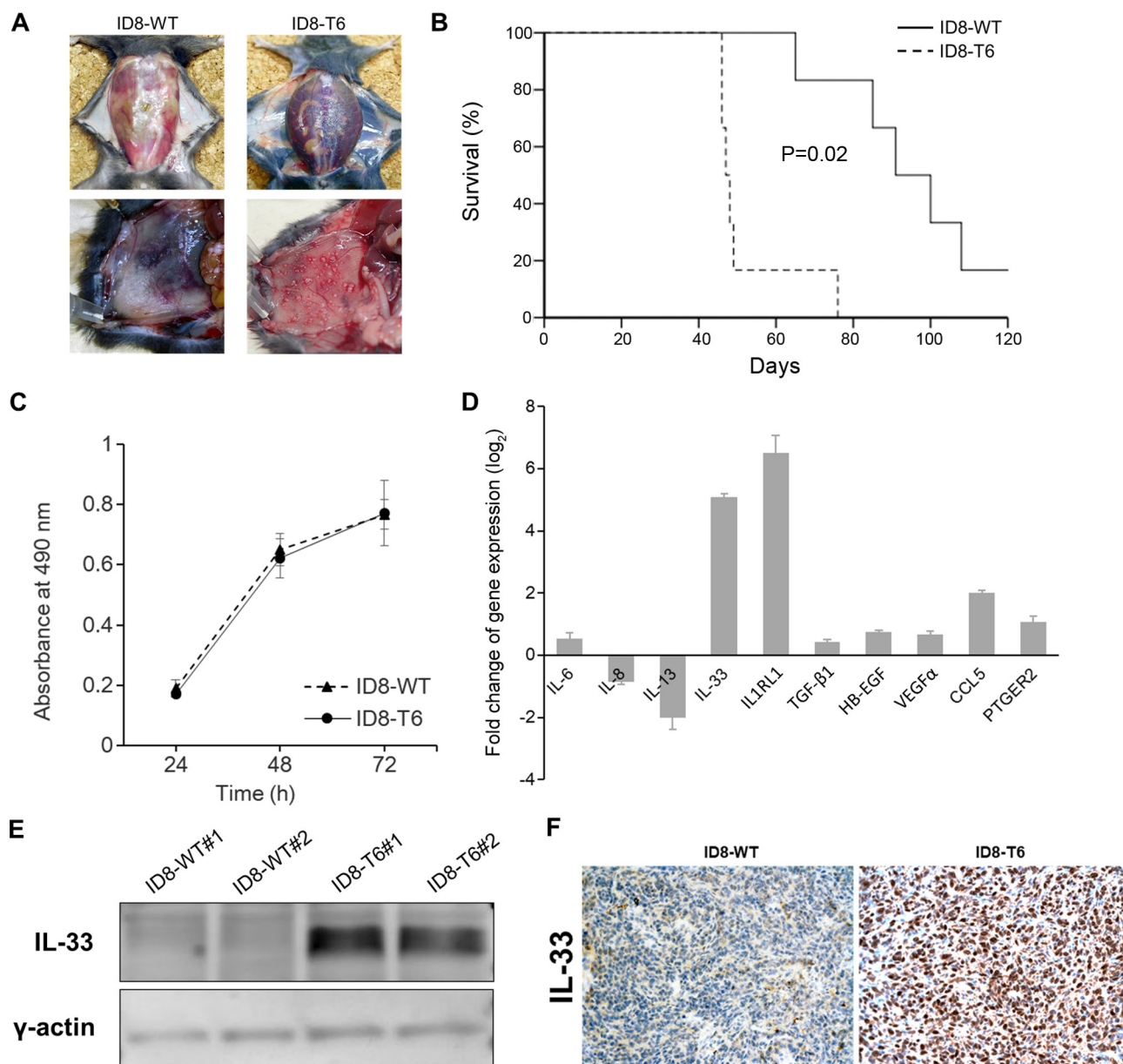


Figure S3. Migration of ID8-WT and ID8-T6 cells was evaluated by wound healing assays. The cell monolayer was scratched using a 200- $\mu$ l pipette tip. Images were acquired at 0 and 8 h after wounding (n=4). \*\*P<0.001.

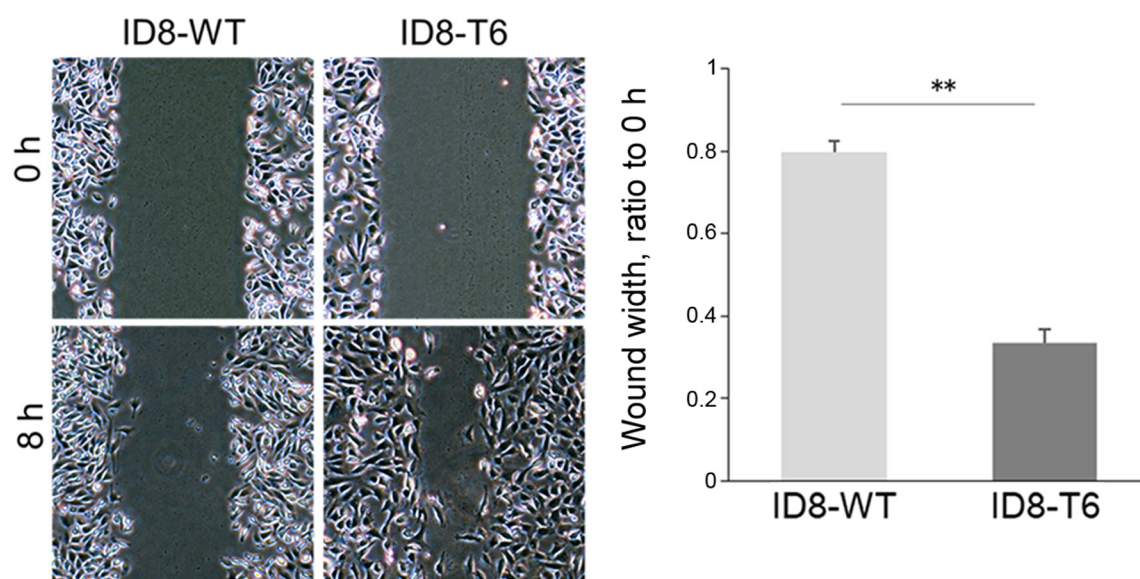


Figure S4. Western blot analysis of expression of human ovarian cancer cell lines SKOV3, CAOV3, OV90 and A2780 cells.

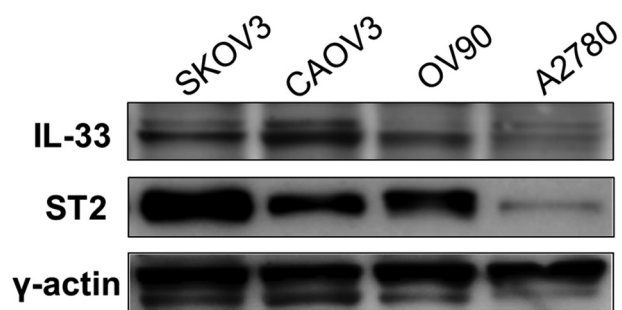


Figure S5. Migration of ID8-mock and ID8-IL33 cells was evaluated by wound healing assays (n=4); n.s, not significant.

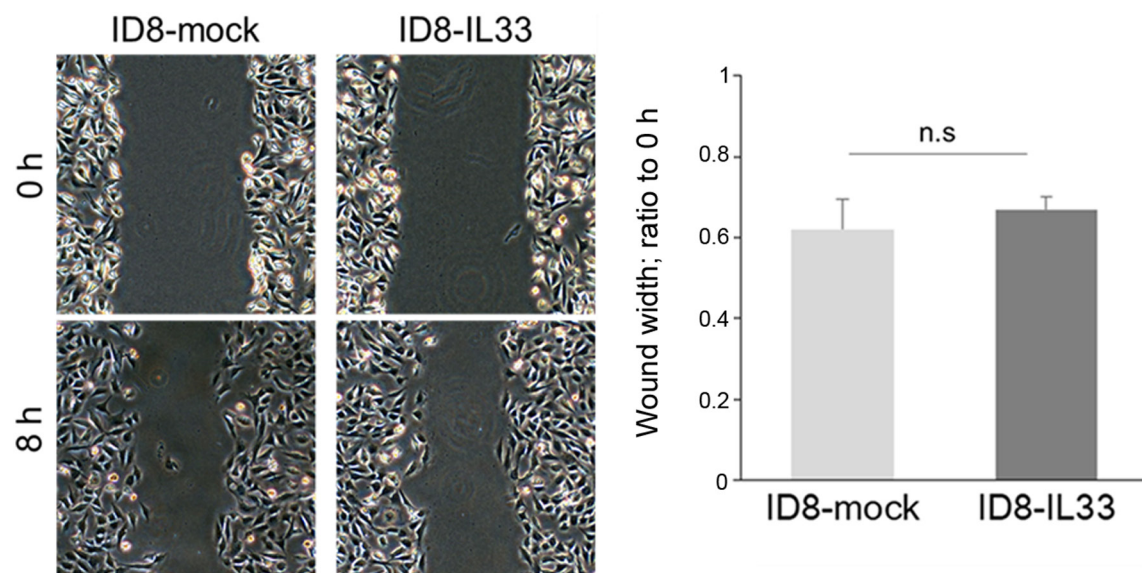


Table SI. Primer pairs used in this study.		
Gene	Primer	Sequence 5'-3'
IL-6	Forward	5'-CACAGAGGATACCACTCCCAACA-3'
	Reverse	5'-CATTTCCACGATTTCCCAGAGA-3'
IL-8	Forward	5'-AATTTCCACCGGCAATGAAG-3'
	Reverse	5'-CTCTTGTTCTCAGGTCTCCCAA-3'
IL-13	Forward	5'-TTGCTTGCCTTGGTGGTCT-3'
	Reverse	5'-GTCTGGTCTTGTGTGATGTTGCT-3'
IL-33	Forward	5'-TGAGACTCCGTTCTGGCCTC-3'
	Reverse	5'-CTCTTCATGCTTGGTACCCGAT-3'
IL1RL1	Forward	5'-TGTATTTGACAGTTACGGAGGGC-3'
	Reverse	5'-ACTTCAGACGATCTCTTGAGACA-3'
TGF- $\beta$ 1	Forward	5'-CGCCTGAGTGGCTGTCTTT-3'
	Reverse	5'-CGTGGAGTTTGTTATCTTTGCTGT-3'
HB-EGF	Forward	5'-TGTCGTCCGTCTGTCTTCTTGT-3'
	Reverse	5'-CACGCCCAACTTCACTTTCTC-3'
VEGF $\alpha$	Forward	5'-TGAGACTCCGTTCTGGCCTC-3'
	Reverse	5'-CTCTTCATGCTTGGTACCCGAT-3'
CCL5	Forward	5'-GGAGCACTTGCTGCTGGTGTAG-3'
	Reverse	5'-AGATCTCTGCAGCTGCCCTCA-3'
PTGER2	Forward	5'-TCGCAGGAGAGGAGAGAGGA-3'
	Reverse	5'-CAAAGATTGTGAAAGGCAAGGAG-3'
$\beta$ -actin	Forward	5'-AGCCATGTACGTAGCCATCC-3'
	Reverse	5'-TTTGATGTCACGCACGATTT-3'

IL, interleukin; IL1RL1, interleukin 1 receptor like 1; TGF- $\beta$ 1, transforming growth factor  $\beta$ 1; HB-EGF, heparin binding EGF like growth factor; VEGF $\alpha$ , vascular endothelial growth factor  $\alpha$ ; CCL5, C-C motif chemokine ligand 5; PTGER2, prostaglandin E receptor 2.

Table SII. Top 10 most upregulated genes by genome-wide expression profiling of ID8-T6 compared with ID8-WT.

A, Tumor cell		
Gene symbol	Gene description	Fold change T6/WT
Mela	Melanoma antigen	321.8
Igfbp5	Insulin-like growth factor binding protein5	139.5
Colla2	Collagen,typeI,alpha2	84.0
IL33	Interleukin 33	50.7
Postn	Periostin, osteoblast specific factor	49.2
Glpr1	GLI pathogenesis-related1(glioma)	48.5
Sfrp2	Secreted frizzled-related protein2	43.3
Angptl7	Angiopoietin-like7	39.3
9930013L23Rik	RIKEN cDNA9930013L23 gene	37.2
Cthrc1	Collagen triple helix repeat containing1	35.8
B, Tumor tissue		
Gene symbol	Gene description	Fold change T6/WT
Mela	Melanoma antigen	340.7
Ighm	Immunoglobulin heavy constant mu	28.2
Eya4	Eyes absent 4homolog(Drosophila)	20.6
Car3	Carbonic anhydrase3	16.2
IL33	Interleukin 33	15.1
Postn	Periostin, osteoblast specific factor	13.3
Glpr1	GLI pathogenesis-related1(glioma)	11.9
Cthrc1	Collagen triple helix repeat containing1	11.9
Fndc1	Fibronectin type III domain containing1	11.6
Saa3	Serum amyloid A3	10.6