Figure S1. Effects of downregulation of AGR2 expression using siRNA. Reverse transcription-quantitative PCR and western blotting revealed that AGR2-targeting siRNA effectively reduced the mRNA and protein levels of AGR2 in TE5 and TE15. The figure shows representative western blots. Results are mean \pm standard deviation. Experiments were performed in triplicate. *P<0.05. ACTB, β -actin; AGR2, anterior gradient 2; si AGR2, AGR2 specific small interfering RNA; siRNA, small interfering RNA; si cont, control small interfering RNA.



Figure S2. Effects of AGR2 downregulation in *TP53* wild-type TE2 cells. (A) Reverse transcription-quantitative PCR and western blotting revealed that the AGR2 siRNA effectively reduced the mRNA and protein levels of AGR2 in TE2. Effects of AGR2 downregulation on (B) cell proliferation at the indicated time and (C) colony formation. (D) Effects of AGR2 downregulation on cell cycle. The cells were transfected with the control or AGR2-targeting siRNA. They were stained with PI and analyzed by flow cytometry 72 h after transfection. (E) Effects of AGR2 downregulation on apoptosis. The cells were transfected with the control or AGR2-targeting siRNA. They were stained with PI and analyzed by flow cytometry 72 h after transfection on p53 and phosphorylation of p53 serine 15 in TE2. The figure shows representative western blots of TE2 transfected either with the control or AGR2-tageting siRNA. The figure showed representative western blots. Results are mean \pm standard deviation. Experiments were performed in triplicate. *P<0.05. ACTB, β -actin; AGR2, anterior gradient 2; siRNA, small interfering RNA; ESCC, esophageal squamous carcinoma; p-p53 s15, phosphorylation of p53 serine 15; PI, propidium iodide; si AGR2, AGR2 specific small interfering RNA; siRNA, small interfering RNA; si cont, control small interfering RNA.



Figure S3. Expression of p53 in ESCC tissue and survival analysis by p53 expression. (A) IHC staining of the normal squamous epithelium with the p53 antibody. (B and C) IHC staining of primary ESCC tissue with the p53 antibody. Magnification, x400. Scale bar, 50 μ m. (D) Patients were classified into two groups with high or low tumor expression of p53. ESCC, esophageal squamous carcinoma; IHC, immuno-histochemistry.

