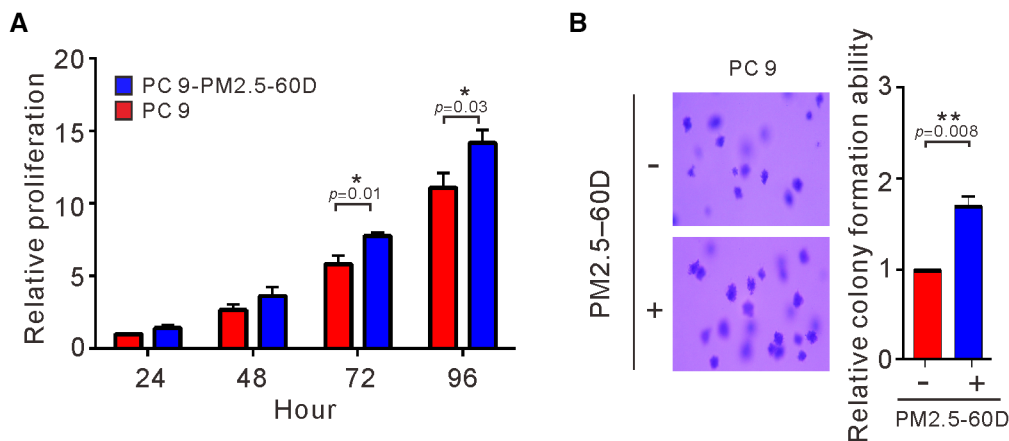


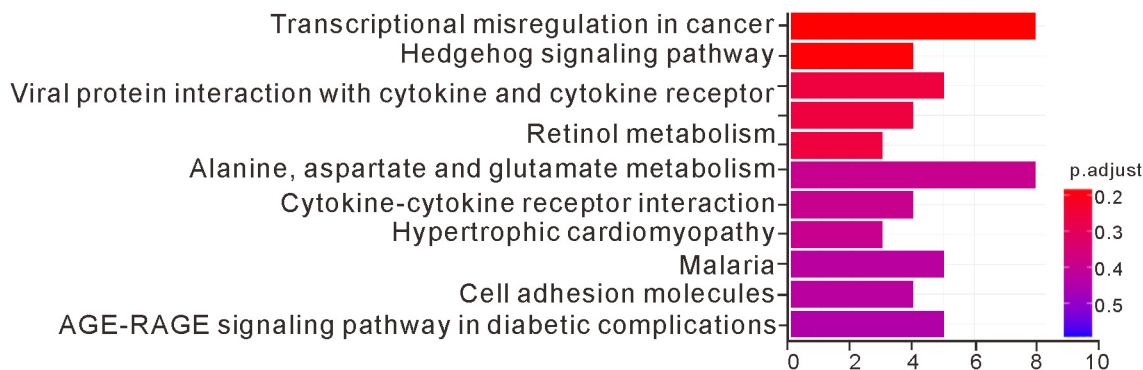
## Expanded View Figures



**Figure EV1. Effects of long-term exposure to PM2.5 on cell proliferation and anchorage-independent growth of PC9 lung cancer cells.**

A, B PC9 cells were treated with PM2.5 at 50  $\mu\text{g}/\text{ml}$  for 60 days. The proliferation of treated cells was assessed by Trypan blue assay (A). The anchorage-independent growth was assessed by a soft agar colony formation assay (B). The data shown are the means  $\pm$  SDs from three independent experiments. \* $P < 0.05$  and \*\* $P < 0.01$ , compared with untreated cells. (A)  $P$ -values were determined by two-sample  $t$ -test. (B)  $P$ -values were determined by one-sample  $t$ -test.

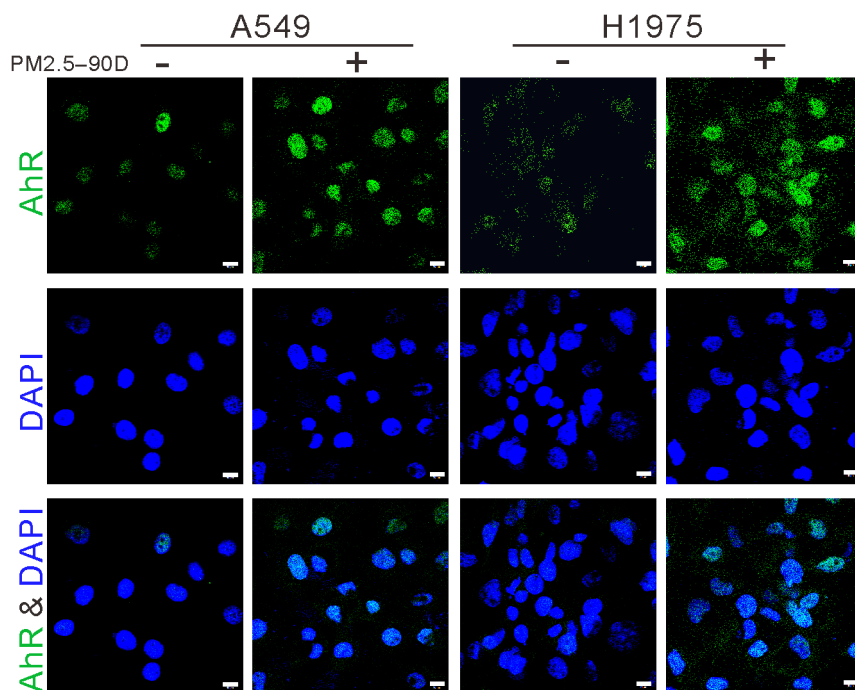
Source data are available online for this figure.



**Figure EV2. The top 10 enriched biological processes in long-term exposure to PM2.5.**

H1975 cells were exposed to 50  $\mu\text{g}/\text{ml}$  PM2.5 for 90 days, and total RNA was subjected to whole-transcriptome analysis as described in the Materials and Methods. Functional classification of the differentially expressed genes in PM2.5-treated H1975 cells, as assessed using ingenuity pathway analysis.

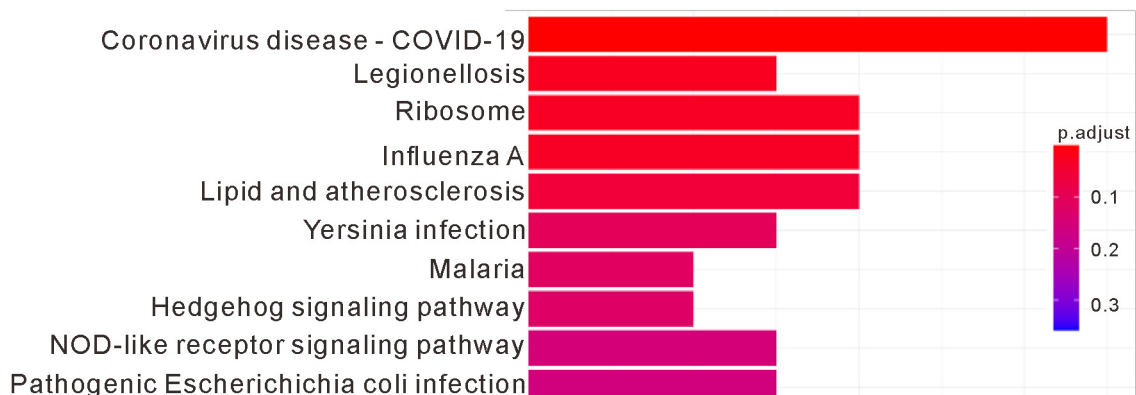
Source data are available online for this figure.



**Figure EV3. Immunofluorescence staining of AhR.**

The subcellular distribution of AhR was assessed by immunofluorescence staining in H1975 and A549 cells treated with 50 µg/ml PM2.5 for 90 days. DAPI was used as a nuclear stain. Scale bar: 10 µm.

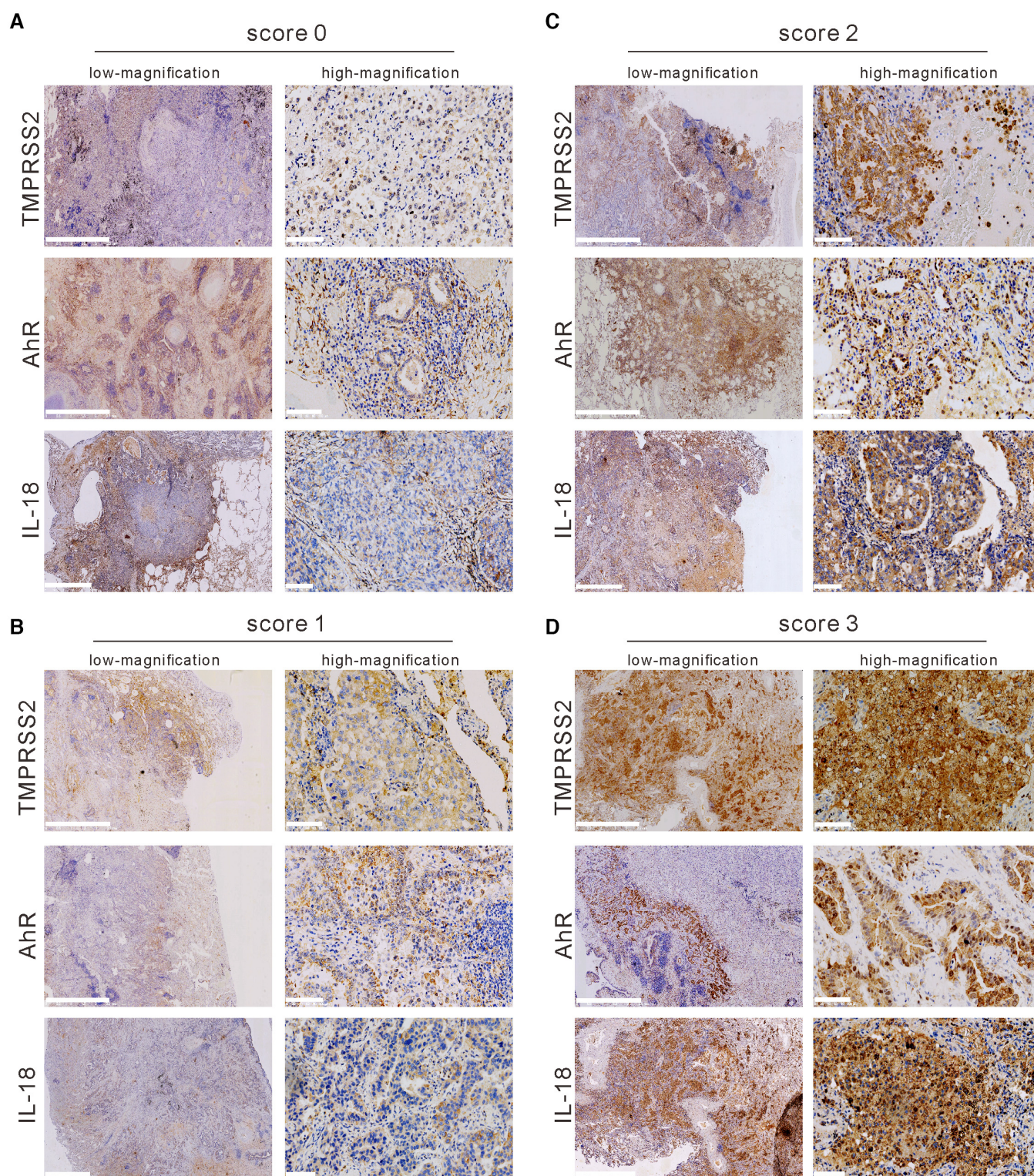
Source data are available online for this figure.



**Figure EV4. The top 10 enriched biological processes in TMPRSS2 overexpression.**

H1299 cells were transfected with TMPRSS2-HA or the empty vector (Vector). After 48 h, the transfected cells were subjected to whole-transcriptome analysis. Functional classification of the differentially expressed genes in TMPRSS2-overexpressing H1299 cells, as assessed using ingenuity pathway analysis.

Source data are available online for this figure.



**Figure EV5. Representative IHC staining images showing immunoreactivity.**

A–D (A) Score 0, (B) score 1, (C) score 2, and (D) score 3 of TMPRSS2, IL18, and AhR in lung cancer tissue. Scale bars, 2.5 mm (low magnification) and 100  $\mu$ m (high magnification).

Source data are available online for this figure.