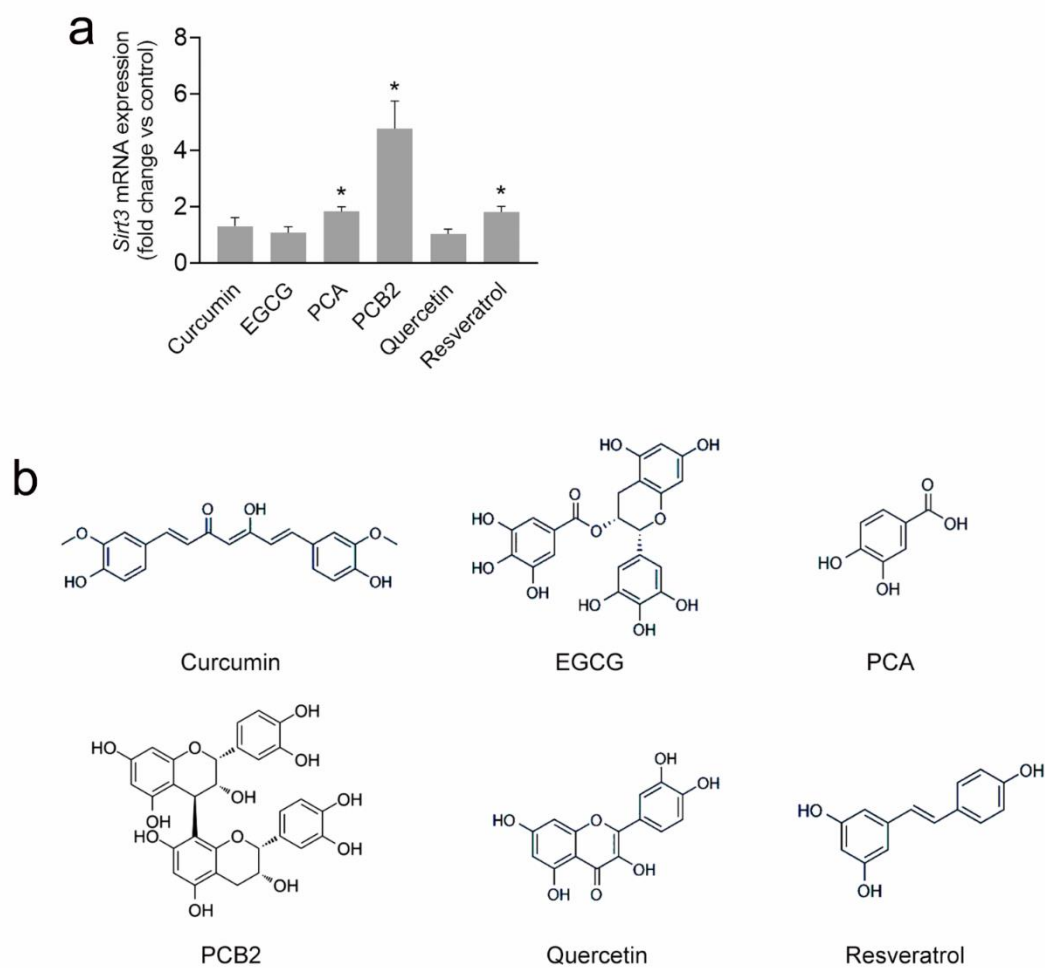
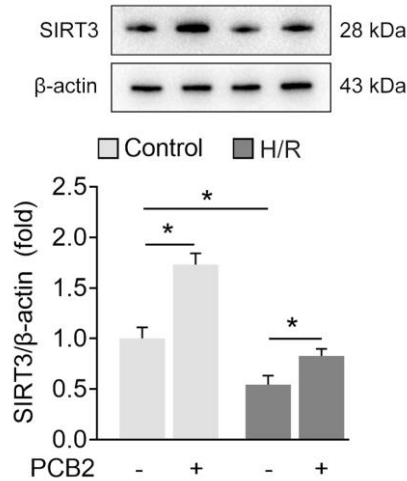


Supplementary Figures



Supplementary Fig. 1 PCB2 administration upregulates *Sirt3* mRNA expression.

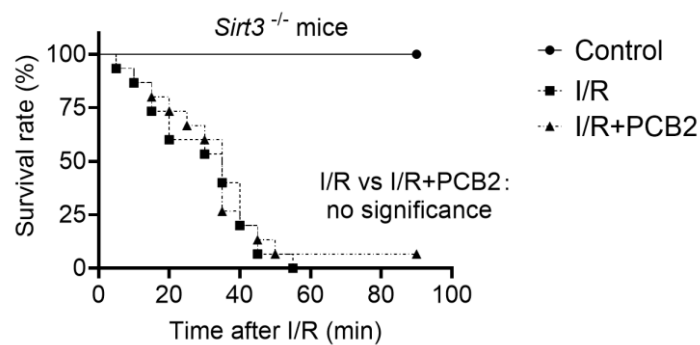
PCB2 (30 mg/kg), curcumin (25 mg/kg), (-)-epigallocatechin gallate (EGCG, 85 mg/kg), protocatechuic acid (PCA, 30 mg/kg), quercetin (50 mg/kg), resveratrol (10 mg/kg) or vehicle was injected intraperitoneally into mice once a day for three consecutive days. (a) The fold change in *Sirt3* mRNA expression in the lung. $n=3$. $*p<0.05$ compared with each of the vehicle controls. (b) Chemical structures of curcumin, EGCG, PCA, PCB2, quercetin and resveratrol.



Supplementary Fig. 2 PCB2 relieves H/R-induced SIRT3 suppression in A549 cells.

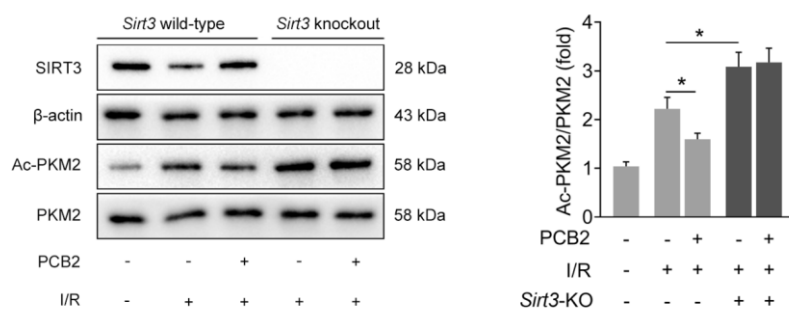
A549 cells were treated with 20 μ M PCB2 for 24 h and then subjected to 6 h of hypoxia followed by 2 h of reoxygenation to induce H/R injury. The SIRT3 protein level in A549 cells is shown, $n=3$.

* $p<0.05$. Error bars depict the standard deviations.



Supplementary Fig. 3 PCB2 administration did not improve the survival rate of *Sirt3* knockout mice after lung I/R injury.

Sirt3 knockout mice were subjected to 1 h of ischemia followed by 2 h of reperfusion to induce lung I/R injury. Mice from the control group underwent sham surgical procedures. PCB2 (30 mg/kg) was injected intraperitoneally for three consecutive days before the operation. The survival rate of the mice is shown, $n=15$.



Supplementary Fig. 4 PCB2-induced PKM2 deacetylation depends on SIRT3 activation.

Mice were subjected to 1 h of ischemia followed by 2 h of reperfusion to induce lung I/R injury. Mice from the control group underwent sham surgical procedures. PCB2 (30 mg/kg) was injected intraperitoneally for three consecutive days before the operation. The level of the SIRT3 protein and the level of acetylated PKM2 in the lungs from *Sirt3* wild-type or *Sirt3* knockout mice are shown, $n=3$. Error bars depict the standard deviations.

Supplementary Table 1 Primer sequences

Gene	Forward primer (5'-3')	Reverse primer (5'-3')
<i>Sirt1</i>	GCTGACGACTTCGACGACG	TCGGTCAACAGGAGGTTGTCT
<i>Sirt2</i>	GCCTGGGTTCCTCCAAAAGGAG	GAGCGGAAGTCAGGGATAACC
<i>Sirt3</i>	ATCCCGGACTTCAGATCCCC	CAACATGAAAAAGGGCTTGGG
<i>Sirt4</i>	GGCGACGTGTTCTCCTCACTG	ACAAAGTCAACCTTGTCTGGG
<i>Sirt5</i>	CTCCGGGCCGATTCATTTCC	GCGTTCGCAAAACACTTCCG
<i>Sirt6</i>	ATGTCGGTGAATTATGCAGCA	GCTGGAGGACTGCCACATTA
<i>Sirt7</i>	AGCATCACCCGTTTGCATGA	GGCAGTACGCTCAGTCACAT
<i>β-actin</i>	AGAGGGAAATCGTGCGTGAC	AGAGGGAAATCGTGCGTGAC