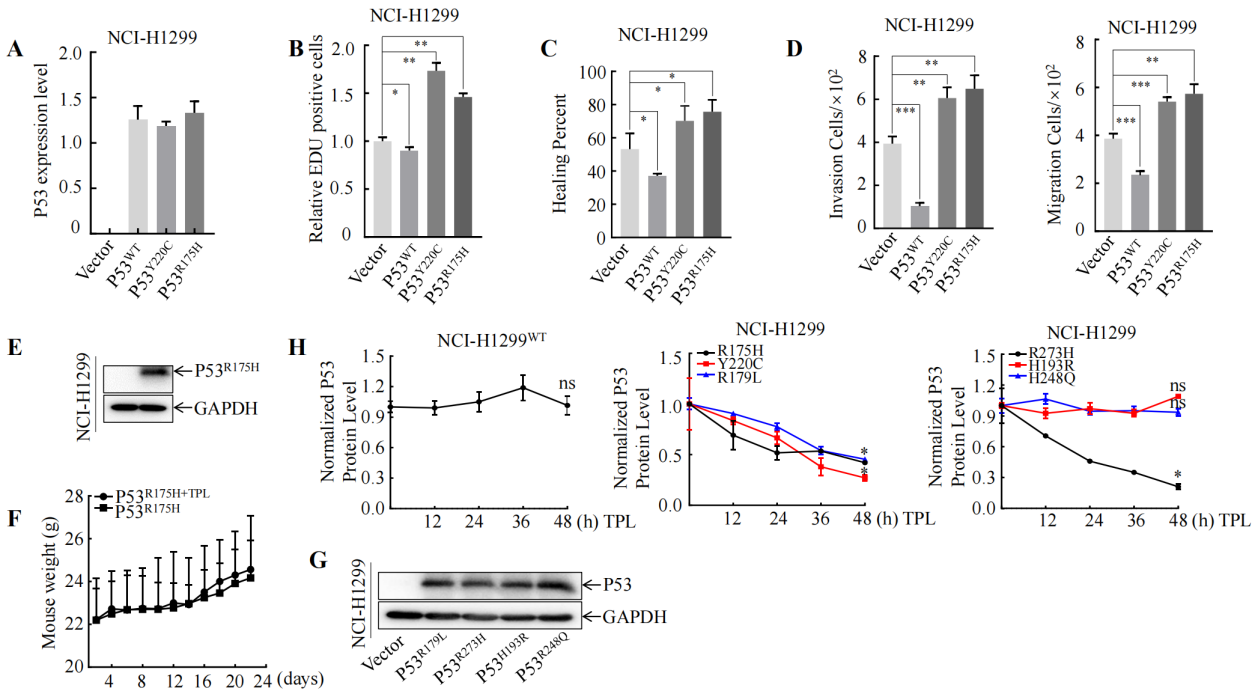

Figure S1 Statistical analysis diagrams of *Figures 1-3*. (A) Bar graph shows the effect of transfecting P53 mutant plasmid. (B) Bar graph shows the percentage of EDU positive cells transfected with P53 mutant plasmid. (C) Bar graph showing percent wound healing in cells transfected with p53 mutant plasmid. (D) Bar graph shows the percentage of migrating and invasive cells transfected with p53 mutant plasmid. The line graph in (E) shows the changes of HSP70 and P53 protein expression after TPL (30 nM) treatment. (F) Line graph showing no toxic effects of TPL in mice. (G,H) Human NCI-H1299 cells were transfected with mutp53 plasmids as shown by western blot analysis. Similar results were obtained with three independent experiments. *, P<0.05; **, P<0.01; ***, P<0.001. TPL, triptolide; HSP70, heat shock protein 70; GAPDH, glyceraldehyde-3-phosphate dehydrogenase; EdU, 5-ethynyl-2'-deoxyuridine; TP53, tumor protein P53; PCR, polymerase chain reaction.

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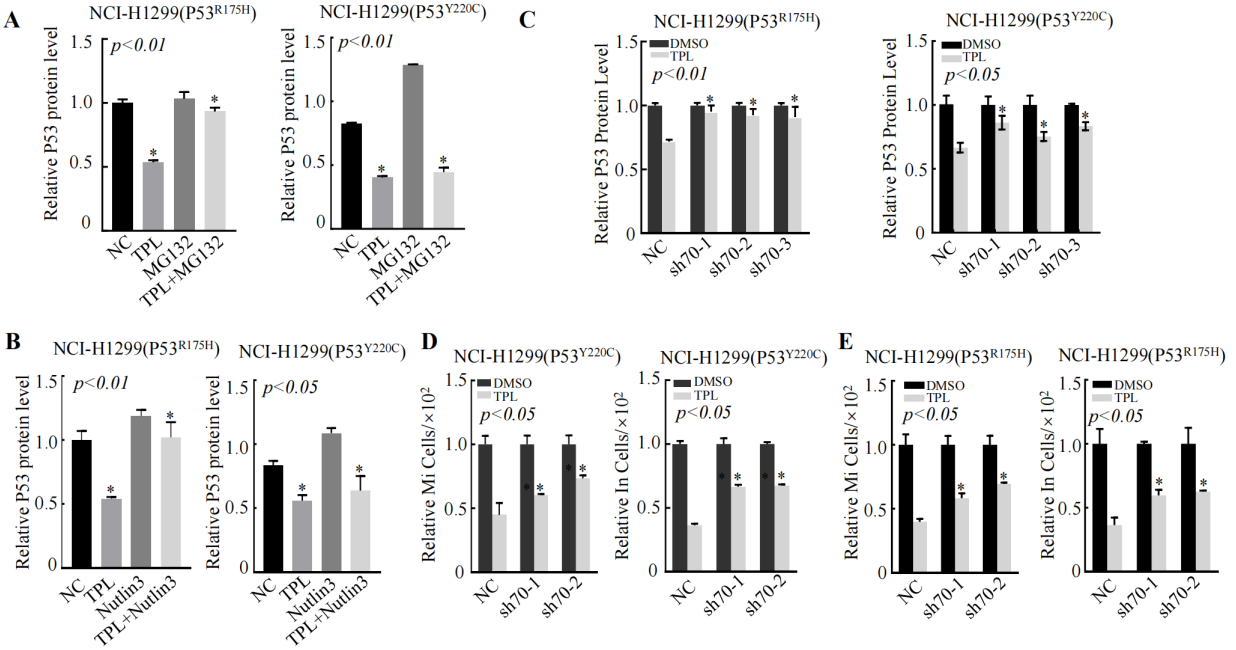

Figure S2 Statistical analysis diagrams of *Figures 2-4*. (A,B) Bar graph shows the NCI-H1299^{R175H} cells and NCI-H1299 cells transfected with mutp53^{Y220C} plasmid were treated with MG132 (20 μM) and Nutlin3 (20 μM) with or without triptolide for 24 h, and mutp53 protein levels were then detected by western blot analysis. (C) Mutp53 protein levels in NCI-H1299-shHsp70 cells transfected with ^{R175H} and ^{Y220C} plasmids with or without triptolide (30 nM) treatment were detected by western blot analysis. (D,E) The Invasive and migratory abilities of NCI-H1299 (shHsp70-treated) cells after transfection with the indicated plasmids with or without triptolide (30 nM) treatment were determined by transwell assays. Similar results were obtained with three independent experiments. *, P<0.05. TPL, triptolide; DMSO, dimethyl sulfoxide; sh70-1/2/3, different lentiviruses knock down HSP70; PCR, polymerase chain reaction; TP53, tumor protein P53.

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Table S1 Construction of primers for TP53 mutation sites

Point mutation primers	Forward primer (5' to 3')	Reverse primer (5' to 3')
Y220C	GTGTGGTGGTGCCCTGTGAGCCGCCTGAGGT	ACCTCAGGCGGCTCACAGGGCACCACCACAC
R273H	GAACAGCTTTGAGGTGCATGTTTGTGCCTGTCCTG	CAGGACAGGCACAAACATGCACCTCAAAGCTGTTC
H193R	TGGCCCCTCCTCAGCGTCTTATCCGAGTGGA	TCCACTCGGATAAGACGCTGAGGAGGGGCCA
H179L	GGCGCTGCCCCCACCTTGAGCGCTGCTCAGA	TCTGAGCAGCGCTCAAGGTGGGGGCAGCGCC
R248Q	TGGGCGGCATGAACCAGAGGCCCATCCTCAC	GTGAGGATGGGCCTCTGGTTCATGCCGCCCA

TP53, tumor protein P53.

Table S2 Primer sequence

PCR primers name	Forward primer (5' to 3')	Reverse primer (5' to 3')
TP53	ACCTATGGAAACTACTTCCTGAAA	CTTCTTTGGCTGGGGAGAGG
FGF22	GACTCTACACCGTGGACTGC	CTGTGAGGCGTAGGTGTTGT
MAP3K8	GTTCAAATGACCGAAGATG	TACAGGTAGGAGGGATAGG
PRKACA	CAGCGGCAGAGATCTTGGG	GTTCCCGGTCTCCTTGTGTT
HSP70	AGCTGGAGCAGGTGTGTAAC	CAGCAATCTTGGAAAGGCCC
ACTB	GGACTTCGAGCAAGAGATGG	CCACGTCACACTTCATGATGG

PCR, polymerase chain reaction; TP53, tumor protein P53; FGF22, fibroblast growth factor 22; MAP3K8, mitogen-activated protein kinase kinase kinase 8; PPKACA, protein kinase CAMP-activated catalytic subunit alpha; HSP70, heat shock protein 70; ACTB, beta-actin.

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