



Correction to: Release of overexpressed CypB activates ERK signaling through CD147 binding for hepatoma cell resistance to oxidative stress

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Published online: 6 October 2018
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Correction to: Apoptosis (2012) 17:784–796
<https://doi.org/10.1007/s10495-012-0730-5>

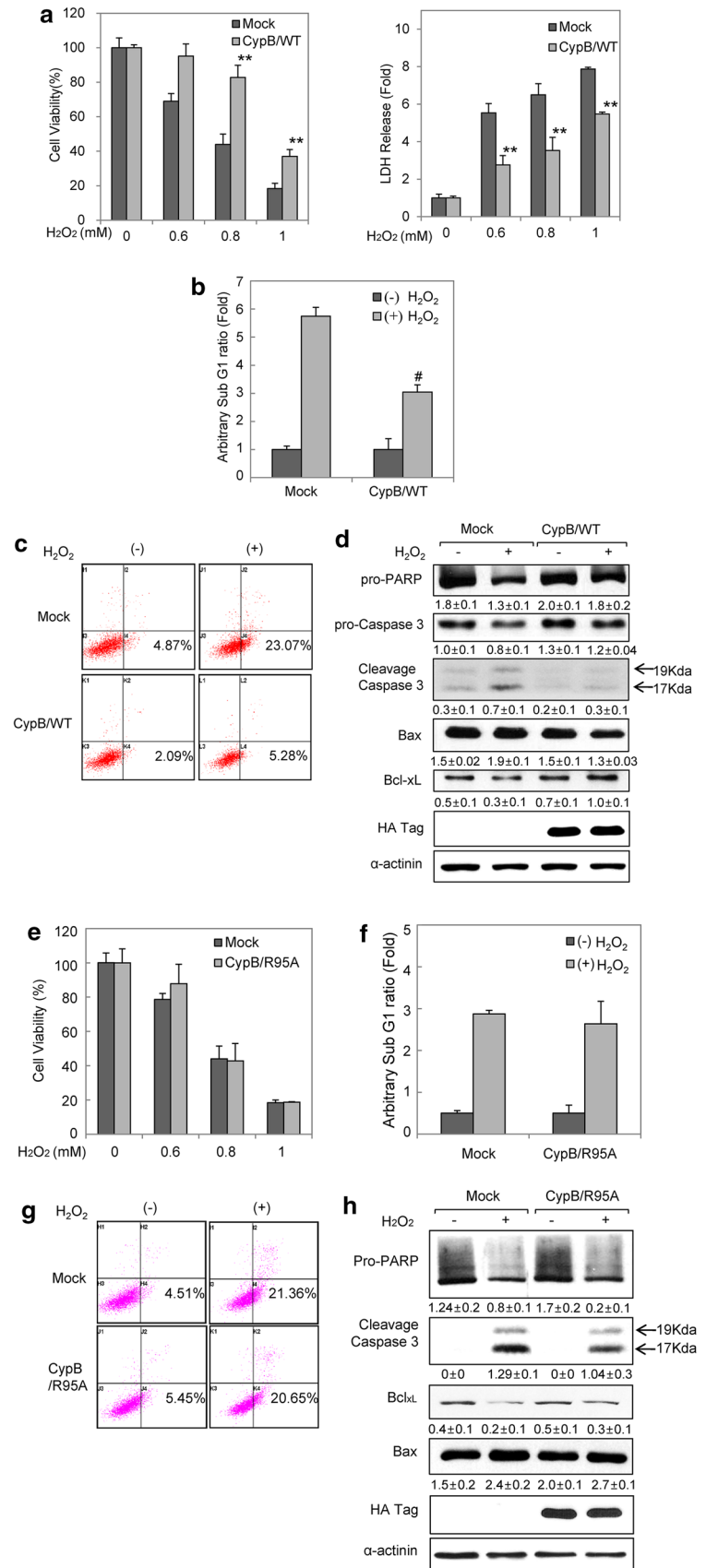
The original version of this article contained a mistake. The bands for HA Tag and t-ERK in Figs. 2d, 2h, 3d are incorrect. The author informs that these errors had no influence in the scientific content of the paper. The corrected figures (Figs. 2 and 3) are given below.

The original article can be found online at <https://doi.org/10.1007/s10495-012-0730-5>.

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Fig. 2 Overexpression of CypB protects cells against H_2O_2 -mediated apoptosis. Huh-7 cells were mock-transfected or transfected with a CypB/WT expression construct and treated with 0, 0.6, 0.8 or 1 mM H_2O_2 for 24 h. After incubation, cell viability was measured by **a**, left MTT assay and **a**, right LDH release assay. Apoptotic cells were detected by **b** PI staining and **c** annexin V/PI double staining. **d** Apoptotic markers were analyzed by immunoblotting. Transfected cells were incubated with 0.8 mM H_2O_2 for 24 h. Whole lysates were separated on 12% SDS-PAGE gels and immunoblotted with anti-PARP, anti-pro-caspase-3, anti-cleaved caspase-3, anti-Bax, anti-Bcl-xL, and anti-HA probe. α -Actinin was used as a loading control. Huh-7 cells were mock-transfected or transfected with a CypB/R95A expression construct and treated with 0, 0.6, 0.8 or 1 mM H_2O_2 for 24 h. After incubation, cell viability was measured by **e** MTT assay. Transfected cells were treated with 0.8 mM H_2O_2 . After 24 h of incubation, cells were harvested, and apoptotic cells were detected with **f** PI staining and **g** annexin V/PI double staining. **h** Apoptotic markers were analyzed by immunoblotting. Whole lysates were separated on 10–12% SDS-PAGE gels and immunoblotted with anti-PARP, anti-cleaved caspase 3, anti-Bax, anti-Bcl-xL, and anti-HA probe. α -Actinin was used as a loading control. Data are expressed as mean \pm SD of three independent experiments. $^{***}P < 0.05$ versus mock-transfected cells treated with H_2O_2 ; $^{\#}P < 0.01$ versus mock-transfected cells treated with H_2O_2



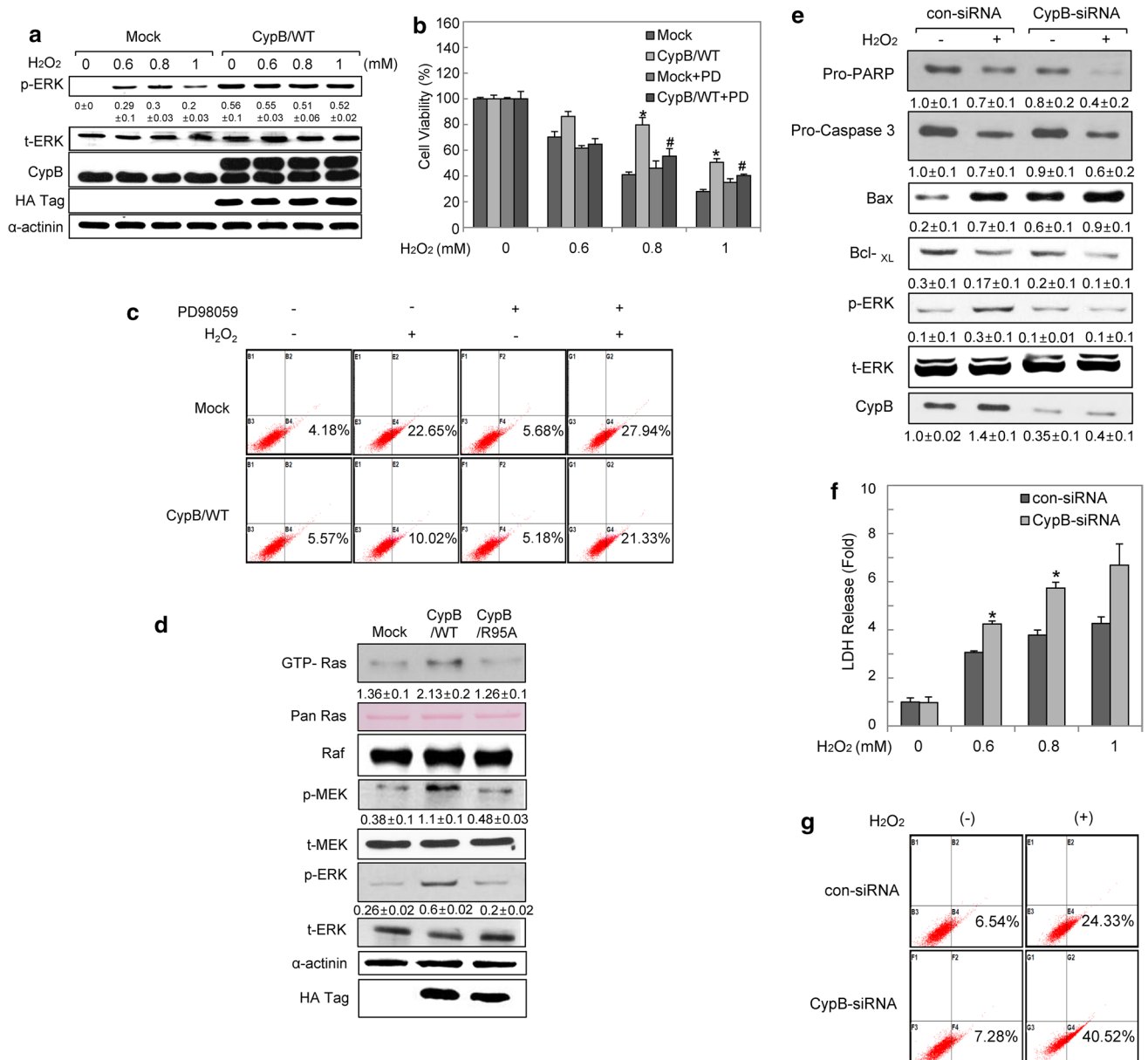


Fig. 3 Overexpression of CypB protects Huh-7 cells through ERK activation. **a** Transfected cells were treated with 0, 0.6, 0.8 or 1 mM H₂O₂ for 24 h. Protein levels were detected by immunoblotting with anti-phospho ERK, anti-total ERK, abCAM, or anti-HA probe. α -Actinin was used as a loading control. **b** Transfected Huh-7 cells were pre-treated with the ERK inhibitor PD98059 (50 μ M). After a 1-h incubation, cells were treated with 0–1 mL H₂O₂ for 24 h. Cell viability was measured by MTT assay. Data are expressed as mean \pm SD of three independent experiments. **P* < 0.05 versus mock-transfected cells treated with H₂O₂; #*P* < 0.05 versus mock-transfected cells treated with H₂O₂ after PD98059 pretreatment. **c** Apoptotic cells were detected with annexin V/PI double staining. Transfected cells were treated with 0.8 mM H₂O₂ after a 1-h pretreatment with PD98059. After 24 h, cells were harvested and analyzed by flow cytometry. **d** ERK upstream activation was determined by Ras affinity assay and immunoblotting. Transfected Huh-7 cell lysates were analyzed by Ras affinity assay and separated on 12% SDS-

PAGE gels. Equal protein loading was ensured by Ponceau S staining and pan-Ras immunoblotting of the input. Immunoblotting was performed with antibodies against Raf, phospho-MEK, total-MEK, phospho-ERK, total-ERK, and the HA tag. α -Actinin was used as a loading control. **e** Huh-7 cells were transfected with con-siRNA or CypB-siRNA and treated with 0.8 mM H₂O₂ for 24 h. After incubation, apoptotic markers were analyzed by immunoblotting. Whole lysates were separated on 10–12% SDS-PAGE gels and immunoblotted with anti-PARP, anti-pro-caspase-3, anti-Bax, anti-Bcl-xL, anti-phospho ERK and anti-total ERK. **f** Transfected cells were treated with 0, 0.6, 0.8 or 1 mM H₂O₂ for 24 h. After incubation, cell viability was measured by LDH-release assay. Data are expressed as mean \pm SD of three independent experiments. **P* < 0.01 versus con-siRNA transfectants treated with H₂O₂. **g** Apoptotic cells were detected with annexin V/PI double staining. After siRNA transfection, cells were incubated with 0 or 0.8 mM H₂O₂. After 24 h, cells were harvested and analyzed by flow cytometry