



Corrigendum: PKM2-Induced the Phosphorylation of Histone H3 Contributes to EGF-Mediated PD-L1 Transcription in HCC

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A Corrigendum on

PKM2-Induced the Phosphorylation of Histone H3 Contributes to EGF-Mediated PD-L1 Transcription in HCC

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In the original article, there were several errors in “**Figures and Figure legends.**”

In **Figure 2** as published, the letters B and C which indicated the figure order were marked in reverse. In **Figure 4**, the letters from B to E which indicated the figure order were marked in reverse, and the figure label “EGF” was missed in the second and third bands in western blots in **Figure 4B**. In **Figure 6B**, the figure label “EGFR” was marked as “ β -actin” mistakenly. Besides, we mistakenly wrote PD-L1 as DKK1 in Figure legends 2, 4, and 6 because of our carelessness. The corrected **Figures 2, 4 and 6** appear below.

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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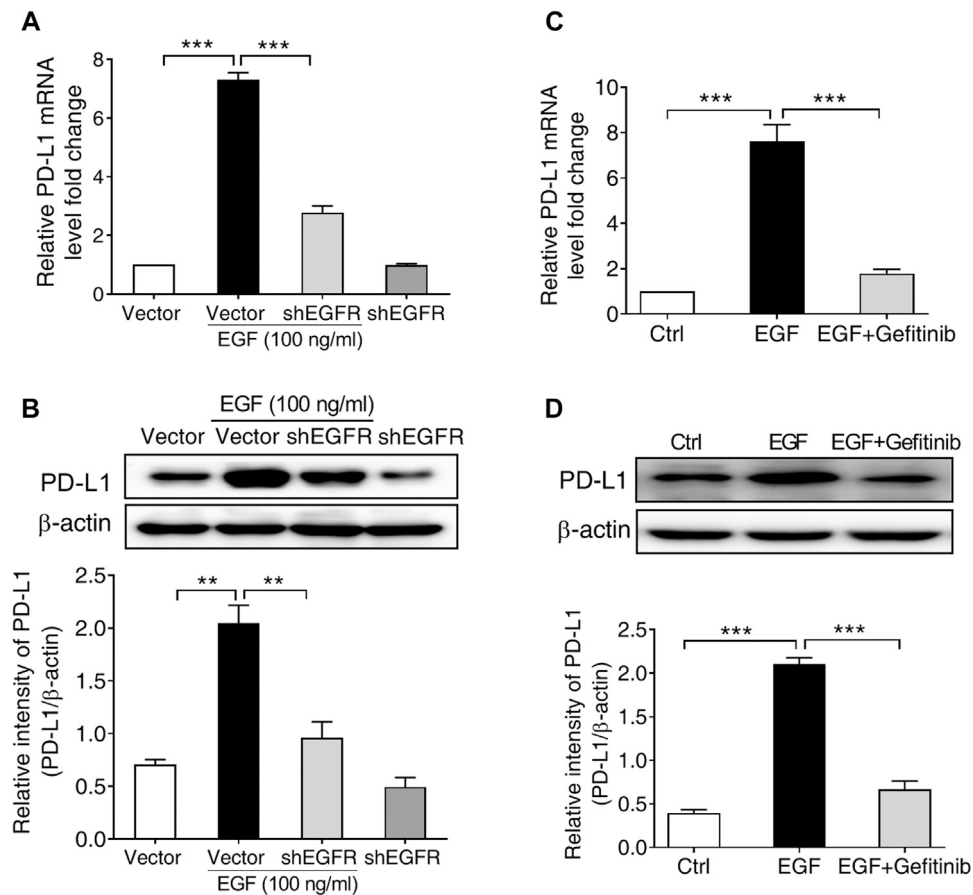


FIGURE 2 | EGFR activation is required for PD-L1 expression in SNU-368 cells. **(A,B)** Knockdown of EGFR with specific shRNA reversed EGF-induced PD-L1 mRNA **(A)** and protein **(B)** expressions in SNU-368 cells. At 24 h post-transfection, the cells were incubated in the presence or absence of 100 ng/ml EGF for 12 h. $**p < 0.01$, $***p < 0.001$, one-way ANOVA, $n = 4$ independent experiments per group. **(C,D)** EGF-induced upregulation of PD-L1 mRNA **(C)** and protein **(D)** was blocked by gefitinib. $***p < 0.001$, one-way ANOVA, $n = 5$ independent experiments per group.

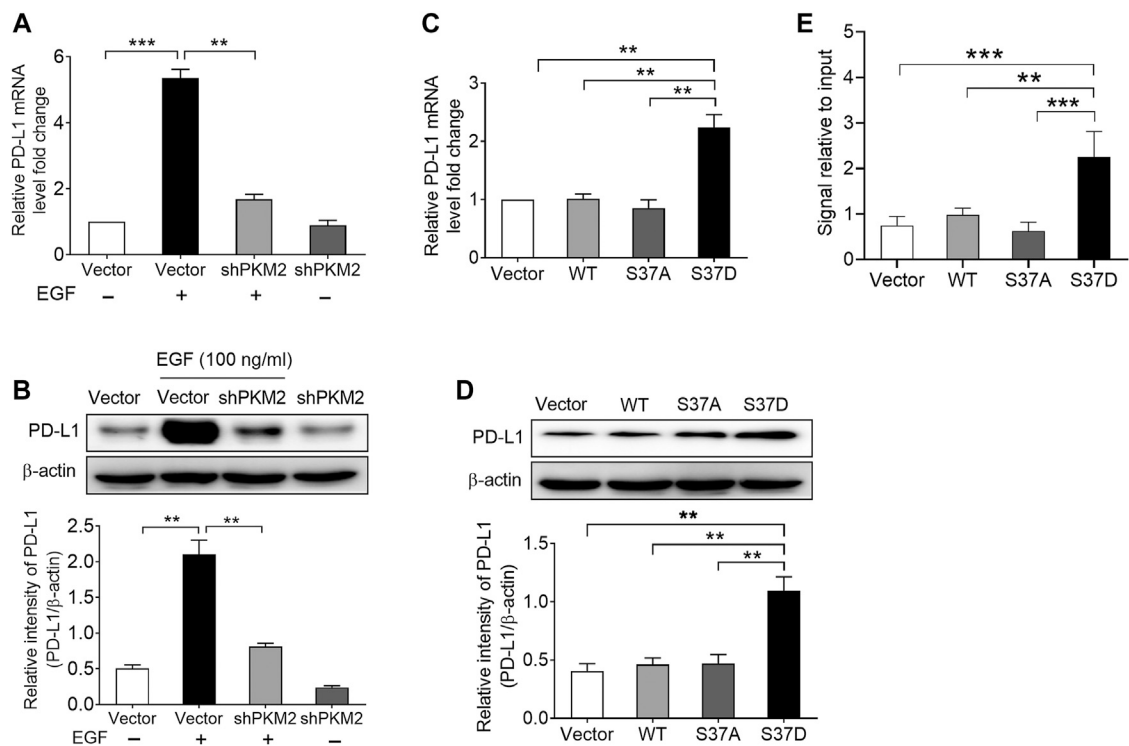


FIGURE 4 | Phosphorylation of PKM2 at Ser37 participates in EGF-induced PD-L1 expression. (A,B) PKM2 shRNA blocked EGF-induced PD-L1 mRNA (A) and protein (B) expressions in SNU-368 cells. At 24 h post-transfection, the cells were incubated in the presence or absence of 100 ng/ml EGF for 12 h. ** $p < 0.01$, *** $p < 0.001$, one-way ANOVA, $n = 4$ independent experiments per group. (C,D) The expression of a phosphorylation-mimic PKM2 S37D mutant induced a higher expression of PD-L1 mRNA (C) and protein (D) compared with WT PKM2 or the S37A mutant in SNU-368 cells. ** $p < 0.01$, one-way ANOVA, $n = 4$ independent experiments per group. (E) ChIP analyses showed that the expression of a phosphorylation-mimic PKM2 S37D mutant resulted in increased binding of PKM2 to PD-L1 promoter in SNU-368 cells. * $p < 0.05$, ** $p < 0.01$, one-way ANOVA, $n = 5$ independent experiments per group.

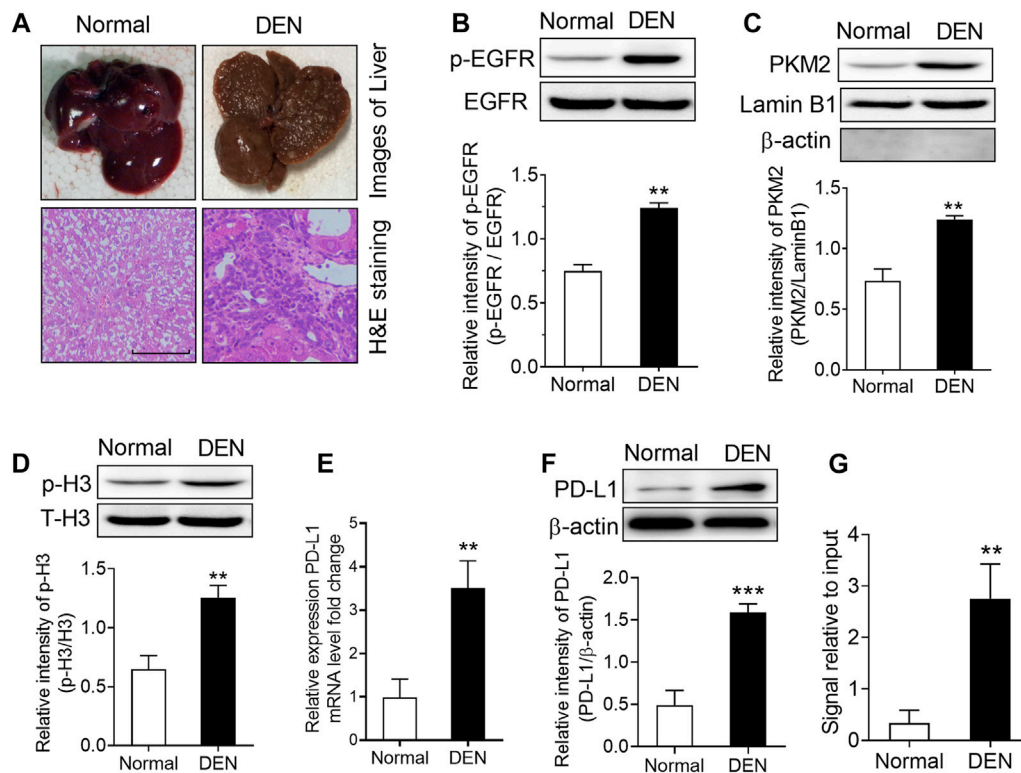


FIGURE 6 | DEN treatment induced a significant upregulation of phospho-EGFR, phospho-H3, and PKM2 nuclear accumulation in rat livers. **(A)** Top, representative photos of livers from normal and DEN-treated rats; bottom, representative images of H&E-stained livers. **(B)** The phosphorylational level of EGFR at Tyr¹⁰⁶⁸ was increased in the livers of DEN-treated rats. ** $p < 0.01$, two-tailed unpaired t -test, $n = 8$ rats per group. **(C)** The expression of PKM2 nuclear protein was upregulated in the livers of DEN-treated rats. Lamin B1 was used as an internal control, and β -actin was used as a negative control. ** $p < 0.01$, two-tailed unpaired t -test, $n = 8$ rats per group. **(D)** The phosphorylational level of H3-Thr¹¹ was increased in the livers of DEN-treated rats. ** $p < 0.01$, two-tailed unpaired t -test, $n = 8$ rats per group. **(E,F)** The expression of PD-L1 mRNA **(E)** and protein **(F)** was increased in the livers of DEN-treated rats. ** $p < 0.01$, *** $p < 0.001$, two-tailed unpaired t -test, $n = 8$ rats per group. **(G)** ChIP analyses showed that DEN administration resulted in enhanced H3-Thr¹¹ phosphorylation at the PD-L1 promoter in rats. ** $p < 0.01$, two-tailed unpaired t -test, $n = 8$ rats per group.