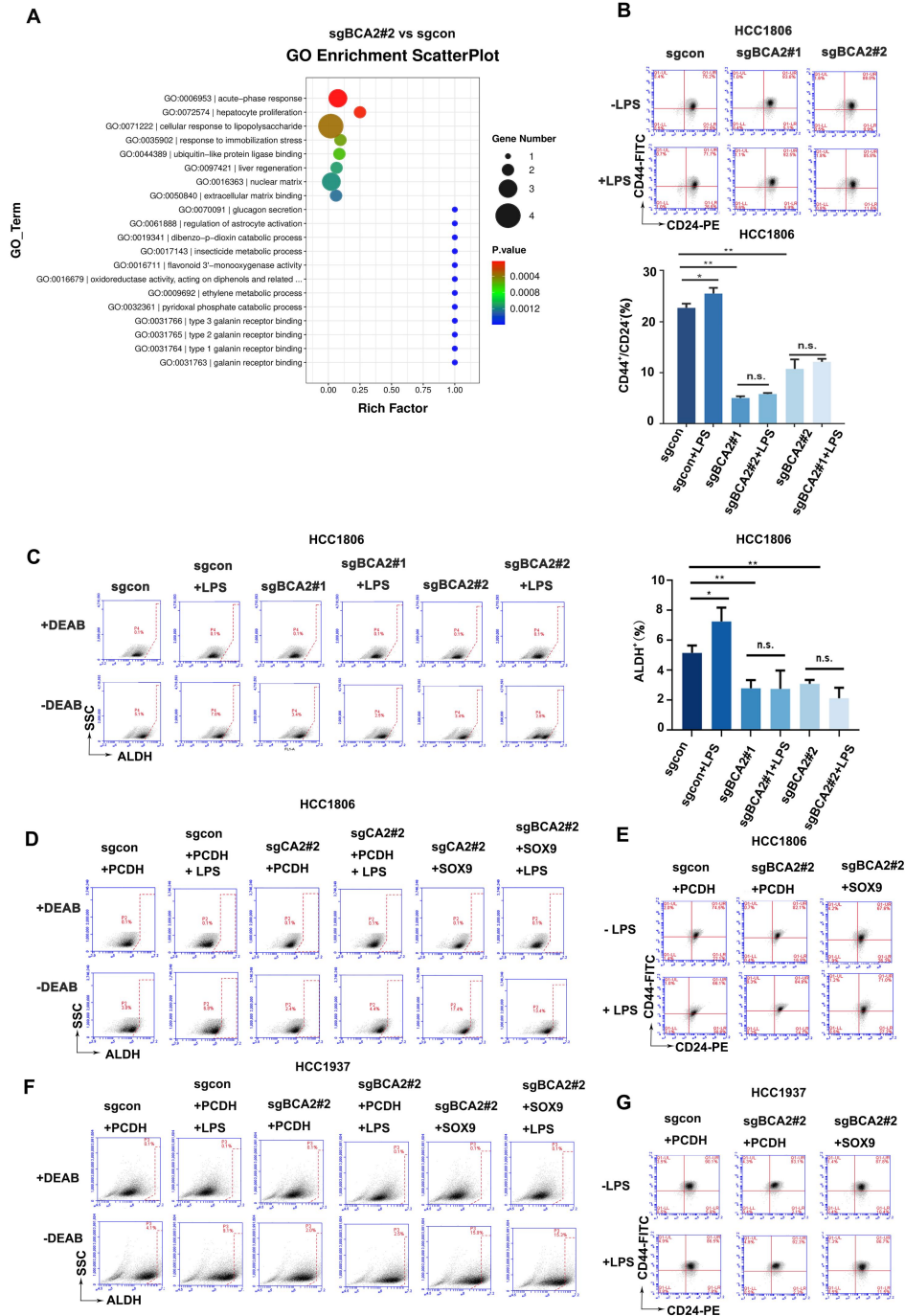


1

2 **Supplementary Figure 1**

3 A) Immunoblot analysis of SOX9, OCT4, Slug and tubulin after knockout of BCA2  
4 in HCC1806 cells.

5 B) Immunoblot analysis of SOX9, OCT4, Slug and tubulin after knockout of BCA2  
6 in HCC1937 cells.

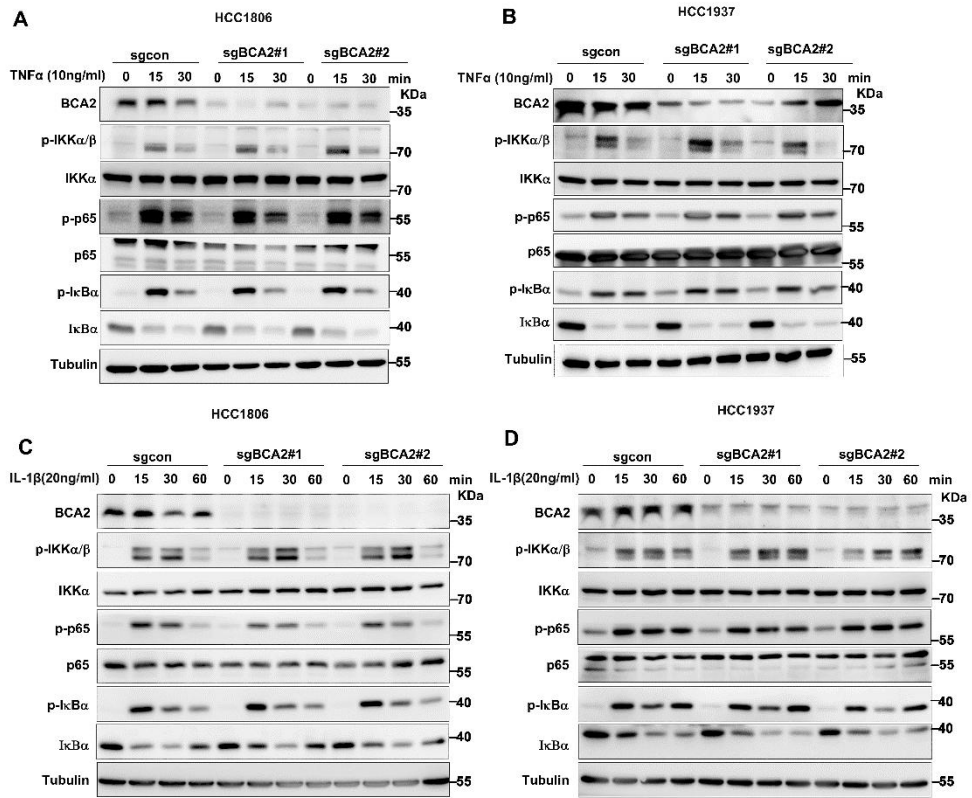


7

8 **Supplementary Figure 2**

9 A) GO showing enrichment of cellular response to LPS in BCA2 differentially  
10 expressed genes based on RNA-Seq data (sgBCA2#2 vs sgcon).

- 11 B) CD44<sup>+</sup>/CD24<sup>-</sup> BCSC population analysis in HCC1806 cells with BCA2 knockout  
12 followed by stimulation with LPS (50 ng/mL). Statistical results of the  
13 CD44<sup>+</sup>/CD24<sup>-</sup> BCSC population in HCC1806 cells (\*, p < 0.05 \*\*, p < 0.01, n.s. ,  
14 not significant).
- 15 C) ALDH activity detected by ALDEFLUOR assay in HCC1806 cells with BCA2  
16 knockout followed by stimulation with LPS (50 ng/mL). Statistical results of the  
17 ALDH<sup>+</sup> BCSC population in HCC1806 cells (\*, p < 0.05 \*\*, p < 0.01, n.s. , not  
18 significant).
- 19 D) ALDH activity detected by ALDEFLUOR assay in HCC1806 cells with BCA2  
20 knockout followed by stimulation with LPS (50 ng/mL) or BCA2 knockout  
21 followed by SOX9 rescue and stimulation with LPS (50 ng/mL).
- 22 E) CD44<sup>+</sup>/CD24<sup>-</sup> BCSC population analysis in HCC1806 cells with BCA2 knockout  
23 followed by stimulation with LPS (50 ng/mL) or BCA2 knockout followed by  
24 SOX9 rescue and stimulation with LPS (50 ng/mL).
- 25 F) ALDH activity detected by ALDEFLUOR assay in HCC1937 cells with BCA2  
26 knockout followed by stimulation with LPS (50 ng/mL) or BCA2 knockout  
27 followed by SOX9 rescue and stimulation with LPS (50 ng/mL).
- 28 G) CD44<sup>+</sup>/CD24<sup>-</sup> BCSC population analysis in HCC1937 cells with BCA2 knockout  
29 followed by stimulation with LPS (50 ng/mL) or BCA2 knockout followed by  
30 SOX9 rescue and stimulation with LPS (50 ng/mL).
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33 **Supplementary Figure 3**

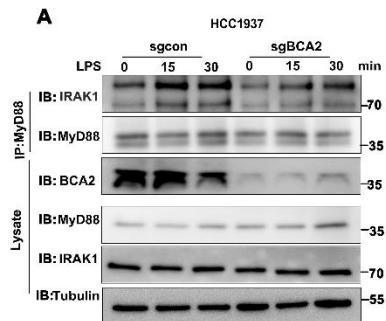
34 A) Immunoblot analysis of total and phosphorylated IKKα/β, p65, and IκBα in  
 35 BCA2 knockout and control HCC1806 cells stimulated with TNFα (10 ng/mL)  
 36 for 0-30 minute.

37 B) Immunoblot analysis of total and phosphorylated IKKα/β, p65, and IκBα in  
 38 BCA2 knockout and control HCC1937 cells stimulated with TNFα (10 ng/mL)  
 39 for 0-30 minutes.

40 C) Immunoblot analysis of total and phosphorylated IKKα/β, p65, and IκBα in  
 41 BCA2 knockout and control HCC1806 cells stimulated with IL-1β (20 ng/mL)  
 42 for 0-60 minutes.

43 D) Immunoblot analysis of total and phosphorylated IKKα/β, p65, and IκBα in  
 44 BCA2 knockout and control HCC1937 cells stimulated with IL-1β (20 ng/mL) for

45 0-60 minutes.



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47 **Supplementary Figure 4**

48 A) HCC1937 cells with BCA2 knockout were stimulated with LPS (500 ng/ml) for  
49 0-30 minutes before immunoprecipitation and immunoblot analysis.

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