Supporting Information

Cacao Bean Polyphenols Inhibit Cardiac Hypertrophy and Systolic Dysfunction in Pressure Overload-induced Heart Failure Model Mice

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Original Images of Western Blots

@ p-ERK 1/2

@ ERK 1/2

Fig. 1S. Western blot analysis of CBPs inhibited PE-induced ERK1/2 phosphorylation in cardiomyocytes.
Cardiomyocytes were treated with CBPs for 2 h and then stimulated with (+) or without (−) PE. The cells were collected after incubated for 15 min at 37°C. The CBPs samples were subjected to western blot analysis together with other samples that are not related to this experiment. The ERK1/2 phosphorylation was inhibited by CBPs as shown in the red box line.
Fig. 2S. Western blot analysis of CBPs inhibited PE-induced GATA4 phosphorylation in cardiomyocytes.
Cardiomyocytes were treated with CBPs for 2 h and then stimulated with (+) or without (−) PE. The cells were collected after incubated for 1 h at 37°C. After nuclear extraction, the CBPs samples were subjected to western blot analysis with others sample that are not related to this experiment. The GATA4 phosphorylation was inhibited by CBPs as shown in the red box line.
### Fig. 3S. Western blot analysis of CBPs inhibited ERK1/2 phosphorylation *in vivo*

Protein extract from the mice heart were subjected to western blot. Each group in this experiment (Sham, TAC, CBP 600 mg/kg, and CBP 1200 mg/kg) were represented in duplication.
Fig. 4S. CBPs did not affect mice body weight and organ weight.

No significant changes were observed between the TAC + vehicle group and TAC + CBP groups for the body weight and organs weight including lung, kidney and liver.
<table>
<thead>
<tr>
<th>Primer Name</th>
<th>Forward primer</th>
<th>Reverse primer</th>
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<tbody>
<tr>
<td>rat-ANF</td>
<td>5'-AGGCCATATTGGAGCAATC-3'</td>
<td>5'-CATCTTTCCTCCAGGGTGTG-3'</td>
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<tr>
<td>rat-BNP</td>
<td>5'-GATTCTGCTCCTGCTTTTCC-3'</td>
<td>5'-CATCGTGATTGTTCTGGAG-3'</td>
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<tr>
<td>mouse-ANF</td>
<td>5'-ATTGACAGGATTGGAGCCCAGAGT-3'</td>
<td>5'-TGACACACCACAAGGGCTTGGAT-3'</td>
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<tr>
<td>mouse-BNP</td>
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<td>5'-TTGGATGACCCCTTTAGTGGT-3'</td>
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<tr>
<td>mouse-β-MHC</td>
<td>5'-CCCTCACATCTTCTCCATCTCTG-3'</td>
<td>5'-TTGGATGACCCCTTTAGTGGT-3'</td>
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<td>mouse-COL1A1</td>
<td>5'-GGGTCTAGACATTTTCAGCTTTG-3'</td>
<td>5'-ACCCCTAGGCATATGTATGCCCC-3'</td>
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<td>mouse-COL3A1</td>
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<td>5'-CCATAGCTGAAACTGGAAAAACCCACC-3'</td>
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<td>mouse-Postn</td>
<td>5'-ACCTGCAATGACAGAAGATCC-3'</td>
<td>5'-TCACCTTCTGACCCCTTTCCG-3'</td>
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<td>18S</td>
<td>5'-CTTACAGGGAACAGGGCAGGCG-3'</td>
<td>5'-GGACCATCTAAGGGCATCA-3'</td>
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**Table 1S.** Primer sequences of qRT-PCR.