The small molecule *Chicago Sky Blue* promotes heart repair following myocardial infarction in mice

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Supplemental Figure 1. CSB improves cardiac function of adult mice following MI without inducing cardiomyocyte proliferation - additional validation. (A) Schematic representation of the MI experiment timeline. (B) Cardiac ejection fraction of uninjured mice (n=4), PBS treated mice (n=5) and CSB treated mice (n=10) up to 21 days post MI measured by Vevo 770 (VisualSonics) echocardiography system (mean ± S.E.M, one-way ANOVA and Dunnett’s post-hoc test). (C) Number of Ki67+ cardiomyocytes per section in the heart of uninjured adult mice (n=3) or in the border zone of PBS treated (n=6) or CSB treated (n=5) adult mice 8 days post MI (mean ± S.E.M, one-way ANOVA and Tukey’s post-hoc test). Hearts were sectioned transversely and border zone was defined as 0-400 µm from injured zone. For all panels: *p<0.05, **p<0.01, n.s.-not significant.
Supplemental Figure 2. CSB does not decrease total-CaMKII or phospho-CaMKII protein level in non-cardiomyocyte cells. (A) Illustration of experimental scheme. Cardiac cells were isolated from adult mice and were plated in vitro. After two passages during 8 days the culture did not contain cardiomyocytes. The cells were incubated for 4 days with CSB 10 µM and proteins were purified for analysis. (B and C) Western blot images and quantification of total-CaMKII (C) and phospho-CaMKII (pCaMKII) (B) protein level in non-cardiomyocyte cells that were incubated for 4 days with or without CSB. For quantification in panel B: n=6 from 2 separate isolations. For quantification in panel C: n=8 from 3 separate isolations. For all panels: mean ± STDEV, unpaired two-tailed Student’s t-test, n.s.-not significant.
Supplemental Figure 3. CSB modulates inflammatory gene expression in macrophage culture. 
(A) Schematic representation of the experiment procedure. Bone marrow cells were differentiated to macrophages (BMDM) using macrophage colony-stimulating factor (M-CSF) and were activated with lipopolysaccharide (LPS). The activated macrophages were treated with CSB and RNA was purified. (B-E) Inflammatory and anti-inflammatory gene expression in BMDM. Expression is relative to no-treatment average. For each treatment: IL1β: n=5, IL10: n=6, TNFα: n=7, IL6: n=9, data are mean ± S.E.M. All genes were tested on cells from 3 separate isolations. Statistical analysis was performed using paired two-tailed Student’s t-test; **p<0.01, n.s.-not significant.