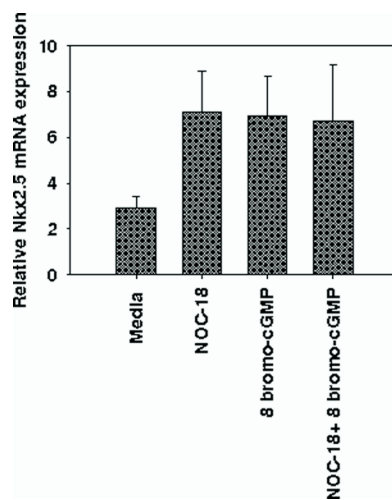
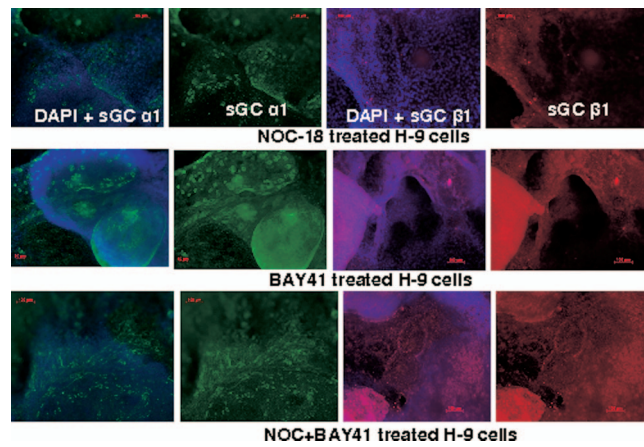


# Supporting Information

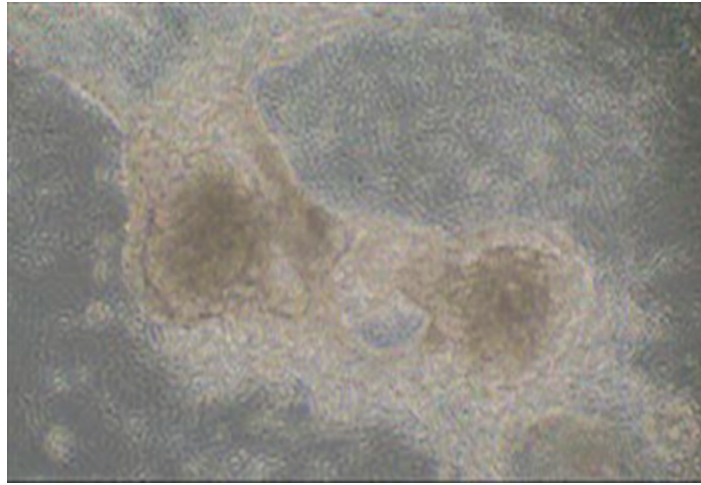
Mujoo *et al.* 10.1073/pnas.0810230105



**Fig. S1.** Multiple treatments of NOC-18, 8-bromo cGMP (8BG) and combination of NOC-18 + 8BG: H-9 human ES cells were differentiated using embryoid body formation method and EBs were transferred into 12 well plates for further differentiation. The cells were exposed to NOC-18 (10  $\mu$ M), 8BG (0.75 mM) or the combination of NOC-18 + 8BG on days 7, 9, 11, 13 and harvested on d14. mRNA expression of Nkx2.5 was determined by real-time PCR. All of the samples were normalized with house keeping gene GAPDH.  $n = 3$ .



**Fig. S2.** Immunofluorescence detection of sGC  $\alpha$ <sub>1</sub> and  $\beta$ <sub>1</sub> in H-9 cells exposed to NO donor and sGC activator. Differentiated cells were exposed to NOC-18 (1  $\mu$ M), BAY41-2272 (3  $\mu$ M) or the combination of two (C) for 24 h at 37°C and the cells were fixed with paraformaldehyde and incubated with antibodies to sGC  $\alpha$ <sub>1</sub> and  $\beta$ <sub>1</sub> which was followed by detection with fluorescent conjugated secondary anti rabbit antibodies (10x magnification).



**Movie S1.** Day 14 differentiated H-9 cells exposed to NO donor NOC-18 (2  $\mu$ M) on days 7, 9, 11, and 13. Shown are the beating areas.

[Movie S1 \(MPG\)](#)



**Movie S2.** Day 14 differentiated H-9 cells exposed to NO donor NOC-18 ( $2 \mu\text{M}$ ) + BAY 41-2272 ( $3 \mu\text{M}$ ) on days 7, 9, 11 and 13. Shown are the beating areas.

[Movie S2 \(MPG\)](#)