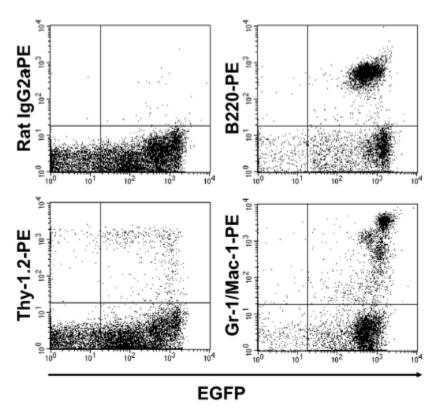
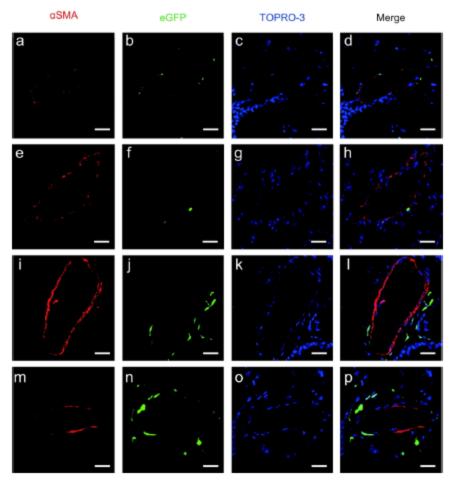
## **Supporting information**



S1 Fig. Flow cytometric analysis of hematopoietic engraftment

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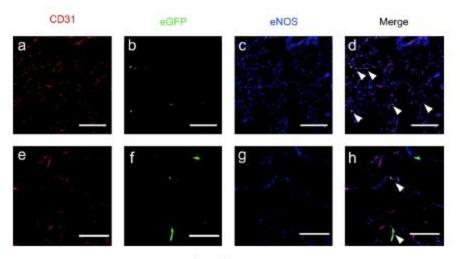
The reconstitution of B-cell (B220<sup>+</sup> cells), T-cell (Thy-1,2<sup>+</sup> cells) and granulocyte/macrophage (Mac-1/Gr-1<sup>+</sup> cells) lineages after BMT was evaluated by flow cytometric analysis in peripheral blood, which was conducted 6 to 8 weeks after the BMT. The percentages of the engrafting cells in the B-cells, T-cells and granulocyte/macrophage lineages were 99.3%, 75.4% and 96.7%, respectively.



S2 Fig. BM-derived smooth muscle cells were not detected in any sections evaluated.

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Representative confocal imaging of immunostaining with  $\alpha$ -SMA. Alpha-SMA<sup>+</sup>, eGFP<sup>+</sup> BM-derived smooth muscle cells were not detected in any sections in saline-treated normoxic mice (a-d), bosentan-treated normoxic mice (e-h), saline-treated hypoxic mice (i-l) and bosentan-treated hypoxic mice (m-p). scale bar=25 $\mu$ m.



S3 Fig. BM-derived ECs express eNOS.

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Representative confocal laser scanning imaging of the eNOS expression by CD31<sup>+</sup> eGFP<sup>+</sup> bone marrow-derived ECs in bosentan-treated hypoxic mice. scale bar=50μm (a-d). The expression of eNOS by BM-derived ECs were also shown in high power field. scale bar=30μm (e-h). Arrowheads indicate CD31<sup>+</sup>, eGFP<sup>+</sup>, eNOS<sup>+</sup> BM- derived ECs.