Mesenchymal Stem Cells Express c-kit

To the Editor:

I read with interest the article by Hatzistergos et al showing that bone marrow mesenchymal stem cells stimulate cardiac stem cell proliferation and differentiation. The authors described that endogenous c-kit+ cardiac stem cells (CSCs) increased 20-fold in mesenchymal stem cell (MSC)-treated pigs versus control. The authors provided immunostaining data showing that porcine MSCs do not express c-kit (Figure 2C of the article by Hatzistergos et al). Because the authors used 2B8/BM, a new monoclonal antibody for c-kit from Dr Revilla, the accuracy of their immunostaining result is uncertain. In a previous study by me and my colleagues, rat MSCs were immunostained with a rabbit anti-c-kit polyclonal antibody from Santa Cruz Biotechnology Inc. All of the cells were proved to express c-kit (Figure 1 of our article). Therefore, expression of c-kit by MSCs is a topic with controversy.

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None.

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