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## Supplemental materials and methods

### RNA interference

Retroviruses expressing short hairpin follistatin (sh FS) were generated after transfection of the pSUPER.retro sh FS vector into Phoenix cells (Iezzi et al., 2004). Control retroviruses without the sh FS insert were also obtained. C2C12 cells were infected and selected with 1.5 g/ml puromycin. C2C12 carrying sh FS or control cells were differentiated in the presence or absence of 3 mM 8 Br-cGMP.

### Cell culture

C3H10 T1/2 and NIH 3T3 were obtained from American Type Culture Collection and cultured as described previously (Iezzi et al., 2004). P19 cells were obtained from American Type Culture Collection and were cultured and differentiated with Retinoic acid as described previously (Pevny et al., 1998). Mesangioblast-derived smooth muscle D351 cells were cultured as described previously (Brunelli et al., 2004). Newborn mouse cardiomyocytes were isolated and cultured as described previously (Iwaki et al., 1993).

## References

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