

Amazingly "high quality" gel images and indistinguishable PCR bands from different iPS cells.

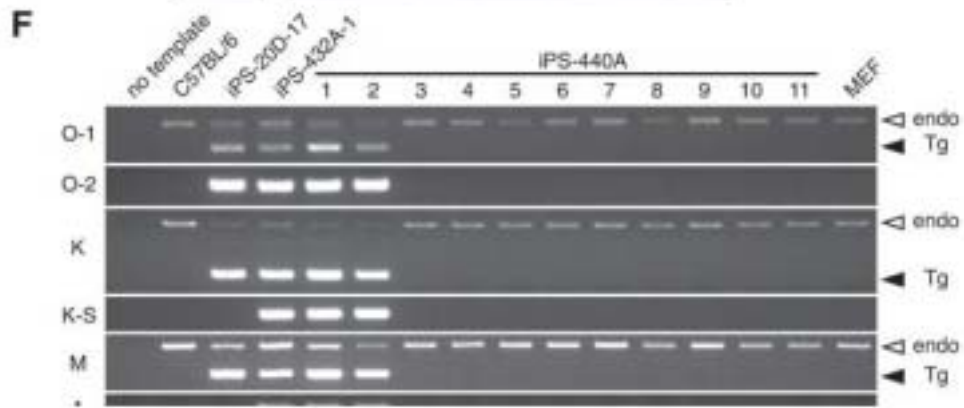
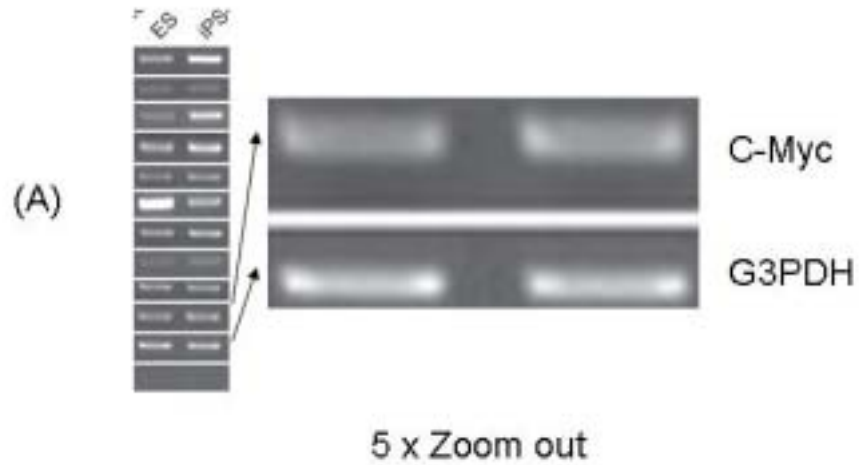
The simultaneous printing of two temporally lagging reports in *Science* (November 7, 2008) presents a unique opportunity to easily compare two related iPS cell researches back and forth.

It is interesting to see that Stadtfeld et al. got "safer" iPS cells with adenovirus as a vehicle for delivering the "inducing" factors (*Science*322:945-949, 2008) but Okita et al. failed to introduce the same four original "Yamanaka" factors with adenoviral vectors (*Science*322:949-953, 2008).

It is also interesting to notice how these two groups presented their data. While Stadtfeld et al. showed intact images of their PCR and Southern blot data, the presentations of PCR data by the Okita et al. were all composite of pieces of bands placed together. These composite datas are much superior (in image quality) but some concerns needs to be addressed.

First of all, I was amazed with the perfect band alignment even across 16 different lanes (Fig. 2F). There was no image gap separating different lanes in the composite image so I assume all lanes were contained in a same BIG gel.

Secondly, I was puzzled with seeing identical bands in different cell lines that are different in many other bands. For example, the ES cells and the iPS -20D-17 cells actually showed the same bands for c-Myc and G3PDH even though their bands for other genes are quite different (Fig. 2D). In addition, similar bands were found for Nanog and G3PDH by two different iPS lines (iPS-440A and iPS-432A-1) (Fig. 2D).



Can someone tell me how indistinguishable PCR bands could appear in some different cells?

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