α4β1 integrin and erythropoietin mediate temporally distinct steps in erythropoiesis: integrins in red cell development

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In the months since the publication of our manuscript, an important technical issue has come to our attention. In subsequent work, we learned that the anti-integrin α4 antibody (Serotec MCA1230) used in the experiments detailed in Figs. 8 C, 9 B, and 10 contained 0.09% sodium azide as a preservative, which can potentially contribute to cell death. The observed inhibition of erythroid cell proliferation by this antibody could have been due at least in part to the azide. We do not feel that this detail minimizes the conclusion of our work that α4β1 integrin protects terminally differentiating erythroid progenitor cells from apoptosis, but we do wish to bring it to your attention. The role of α4β1 integrin in erythropoiesis was made clear in the following experiments that did not utilize this antibody preparation:

In Fig. 8 B, the role of α4β1 integrin in mediating adhesion of erythroid progenitors to fibronectin is shown using mutant fibronectin fragments, without the use of any antibody.

In Fig. 8 C, the addition of the azide-containing α4 antibody had no effect on the number of cells adhering to the V0 fragment.

In Fig. 9 A, the role of α4β1 integrin in mediating proliferation of terminally differentiating erythroid progenitors is seen without the use of any antibody.

In Fig. 9, C and D, the specific effect of α4β1 integrin during the second phase of the culture period is seen without the use of any antibody.

We feel that this additional information could be helpful to those also utilizing in their research function-blocking antibodies to cell surface adhesion receptors.