To the Editor:

We would like to comment on the recent report by Hurwitz et al and also on a previous correspondence by Tatsumi et al concerning the immunophenotypic features of acute myeloid leukemia (AML) with t(8;21) (q22;q22) in children and adults respectively. These investigators stated the absence of the T-cell-associated antigens, CD7 and CD2, in t(8;21) AML and noted an increased frequency of expression of CD19, a B-lymphocyte antigen. We want to point out that our series of t(8;21) patients does not confirm a constant lack of CD7 antigen expression.

As part of the Eastern Cooperative Oncology Group (ECOG) laboratory protocol, EST 1485, we have immunophenotyped in detail 17 cases of adult AML with the t(8;21) aberration. By flow cytometric analysis of double-stained leukemic populations, six of these patients, or 35%, were found to express CD7 on 22 of 100% of myeloblasts (mean 27% ± 4%), as compared with 43% of a series of >200 random AML patients entered on ECOG AML protocols. Two of the CD7 positive t(8;21) patients showed a small population of normal metaphases (10% and 13% of metaphases, respectively) so that expression of CD7 by myeloblasts lacking the t(8;21) abnormality cannot be excluded. We agree with above-mentioned reports regarding the absence of the CD2 antigen in t(8;21) AMLs, whereas in our series one third of AML patients lacking t(8;21) had at least 20% CD2-positive myeloblasts. Furthermore, we found the CD19 antigen to be expressed in 9 of 15 (60%) of our t(8;21) patients (mean 55% ± 4% positive myeloblasts) compared with only 9 of 203 (4.4%) CD19-positive cases in the overall AML population (P < .0001), which confirmed previous observations.

Thus, our results agree that the t(8;21) subgroup of adult AML has distinct immunophenotypic characteristics in that the leukemic cells lack the T-cell antigen CD2 but frequently express the B-cell antigen CD19. However, using the commonly accepted 20% threshold level for defining antigen positivity, we could not confirm earlier observations that the CD7 antigen is invariably absent from myeloblasts in patients with the t(8;21) cytogenetic aberration.

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REFERENCES
Immunophenotypic features of t(8;21) (q22;q22) acute myeloid leukemia in adults [letter; comment]

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