



Effects of CD₃McAb and rhIL-2 activated bone marrow on the killing and purging of leukemia cells

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Genet. Mol. Res. 14 (4): 18287-18292 (2015)
Received August 29, 2015
Accepted October 10, 2015
Published December 23, 2015
DOI <http://dx.doi.org/10.4238/2015.December.23.16>

ABSTRACT. We investigated the roles of CD₃McAb and rhIL-2 activated bone marrow in the killing and purging of leukemia cells. Cytotoxicity of activated bone marrow was detected with MTT assay. CFU-GM level in activated bone marrow and the destruction of leukemia cells were measured using the semi-solid cell culture. Immune activation markers in activated bone marrow were detected by indirect immunofluorescence assay. Bone marrow activated by CD₃McAb and rhIL-2 displayed significantly upregulated the killing and purging abilities on the leukemia cell line K562 and HL-60. Such effects were superior to that of bone marrow activated by rhIL-2 or CD₃McAb alone ($P < 0.05$, $P < 0.01$). Activation by rhIL-2 and (or) CD₃McAb exerted no obvious influence on CFU-GM level in bone marrow. Compared with bone marrow activated by rhIL-2 or CD₃McAb alone, the synergistic effect of both CD₃McAb+ and rhIL-2 caused significant increase of CD3⁺, CD8⁺, CD19⁺, CD25⁺, CD38⁺, and CD56⁺ levels. Our study indicates that CD₃McAb enhanced the killing and purging effects of rhIL-2 activated bone marrow on leukemia cells.

Key words: CD₃McAb; rhIL-2; Activated bone marrow; Killing effect; Bone marrow purification