

# 急性白血病侧群细胞特性及相关通路研究

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**Title:** Study of side population cells and related pathways in acute leukemia

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**关键词:** ABCG2; 急性白血病; PTEN; PI3K/AKT; SP细胞

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**摘要:** 目的:了解SP细胞在急性白血病发病过程中的意义。方法:利用Hoechst 33342染色分选出急性白血病细胞系的SP及MP细胞,比较SP及MP细胞的生物学特性,研究相关通路的变化。结果:急性白血病细胞系可分选出SP细胞,分选出的侧群细胞相对于主群细胞具有较高的G1期表达,较高的细胞增殖能力及克隆形成能力,并且高表达ABC家族的ABCG2耐药蛋白,并具有较强的化疗药物抵抗能力。结论:急性白血病SP细胞具有肿瘤干细胞的生物学特性,ABCG2也许可以作为急性白血病SP细胞表面标志物。

**Abstract:** Objective:To understand the significance of SP cells in the pathogenesis of acute leukemia.Methods:SP and MP cells of acute leukemia cell lines were isolated by Hoechst 33342 staining.The biological characteristics of SP and MP cells were compared and the changes of related pathways were studied.Results:SP cells could be separated from the acute leukemia cell line,and a higher G1 phase expression was found,also higher cell proliferation and cloning ability,and high expression of ABCG2 resistant protein,and stronger chemotherapeutic resistance.Conclusion:Acute leukemia SP cells have the biological characteristics of tumor stem cells,ABCG2 may be used as a marker of the surface of acute leukemia SP cells.

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