

## 实时定量PCR检测成人ALL患者ZAP70基因的表达及意义

陈国枢, 徐兵, 宋小燕, 李洁, 郭绪涛, 周淑芸

510515 广州, 南方医科大学南方医院血液科

### Expression and Clinical Significance of ZAP70 in Adult Patients with Acute Lymphoblastic Leukemia Evaluated by Real-time Quantitative Polymerase Chain Reaction

CHEN Guo shu, XU Bing, SONG Xiao yan, LI Jie, GUO Xu tao, ZHOU Shu yun

Department of Hematology, Nanfang Hospital, Southern Medical University, Guangzhou 510515, China

- 摘要
- 参考文献
- 相关文章

全文: PDF (631 KB) HTML (0 KB) 输出: BibTeX | EndNote (RIS) 背景资料

**摘要** 目的 探讨成人急性淋巴细胞白血病(ALL)患者中Zeta链相关蛋白-70 (ZAP70)基因的表达及其意义。方法 构建实时荧光定量检测ZAP70基因表达的PCR技术, 定量检测73例初治成人ALL患者ZAP70基因的表达水平。结果 建立的实时定量PCR方法的标准曲线相关系数 $r > 0.998$ 。51例(69.8%)初治ALL患者可检出ZAP70基因表达。FAB各亚型中ZAP70基因表达水平差异无统计学意义( $P > 0.05$ ), ZAP70基因表达水平的高低与初治ALL患者的免疫表型差异有统计学意义, T-ALL患者ZAP70基因表达水平显著高于B-ALL和T、B双表型ALL( $P < 0.01$ )。ZAP70基因表达水平的高低与ALL发病时外周血白细胞计数、血红蛋白浓度、血小板计数及骨髓白血病细胞比例无相关关系( $P > 0.05$ )。初治ALL中ZAP70基因高低表达与患者化疗的完全缓解(CR)率差异无统计学意义, 但在普通B-ALL组中, ZAP70高表达组的CR率(52.6%)显著低于ZAP70低表达组(85%) ( $P = 0.041$ )。初治ALL中ZAP70基因高表达患者复发率明显高于低表达组( $P = 0.048$ )。结论 ZAP70基因高表达可能是ALL一个重要的预后不良因素。

**关键词:** ZAP70 急性淋巴细胞白血病 PCR 预后

**Abstract:** Objective To investigate the expressions and clinical significance of zeta associated protein 70 (ZAP70) gene in adult patients with acute lymphoblastic leukemia(ALL). Methods Expressions of ZAP70 were detected by real time fluorescent quantitative polymerase chain reaction (RQ-PCR) in 73 de novo adult ALL patients to analysis the relationship between its expressions and clinical effectiveness. Results The correlation co-efficiencies were over 0.998 for standard curves of RQ-PCR method. ZAP70 expressions were detected in 69.8% ALL patients. There were no statistical differences of ZAP70 gene expression levels in FAB subgroups. However, ZAP70 gene expression levels of T ALL patients were significantly higher than that of B ALL and biphenotypic ALL ( $p < 0.01$ ) in immunophenotyping groups. The expressions level of ZAP70 gene were not correlated to peripheral white blood cell (WBC) counts, hemoglobin level, platelet counts and percentage of bone marrow blast cell at presentation. Statistical analyses showed that the difference of complete remission (CR) rates between high and low ZAP70 expressions in de novo ALL patients was not significant ( $p > 0.05$ ). In common B ALL subgroup, the CR in the group with high expression level of ZAP70(52.6%) was significantly lower than that in the group with low expression level of ZAP70 (85%) ( $p = 0.041$ ). Patients with high expression levels of ZAP70(48.3% vs. 21.7%,  $p = 0.048$ ). Conclusion High expression of ZAP70 might be regarded as an important risk factor in ALL, which predicts a poor prognosis.

High expression of ZAP70 might be regarded as an important risk factor in ALL, which predicts a poor prognosis.

**Key words:** ZAP70 Acute lymphoblastic leukemia Polymerase chain reaction (PCR) Prognosis

收稿日期: 2009-11-13;

通讯作者: 徐兵

引用本文:

陈国枢,徐兵,宋小燕等. 实时定量PCR检测成人ALL患者ZAP70基因的表达及意义[J]. 肿瘤防治研究, 2011, 38(1): 55-58.

CHEN Guo shu, XU Bing, SONG Xiao yan et al. Expression and Clinical Significance of ZAP70 in Adult Patients with Acute Lymphoblastic Leukemia

| 服务           |  |
|--------------|--|
| 把本文推荐给朋友     |  |
| 加入我的书架       |  |
| 加入引用管理器      |  |
| E-mail Alert |  |
| RSS          |  |
| 作者相关文章       |  |
| 陈国枢          |  |
| 徐兵           |  |
| 宋小燕          |  |
| 李洁           |  |
| 郭绪涛          |  |
| 周淑芸          |  |

没有本文参考文献

- [1] 龚益平;漆楚波;王明伟;陈创;赵德绵;许娟;邵军;程洪涛;夏和顺. 三阴性乳腺癌的预后与上皮间叶转化的相关性[J]. 肿瘤防治研究, 2012, 39(2): 173-176.
- [2] 罗平;罗浩军;杨光伦;涂刚. 新型雌激素受体GPER在乳腺癌组织中的表达及与预后的相关性 [J]. 肿瘤防治研究, 2012, 39(2): 181-184.
- [3] 王艳阳;折虹;丁喆;詹文华. Basal-like型乳腺癌临床特征与生存分析[J]. 肿瘤防治研究, 2012, 39(2): 177-180.
- [4] 朱红波;龙志国;李凯;贾国凤;张睿. 整合素 $\alpha 3\beta 1$ 在食管鳞状细胞癌组织中的表达及意义[J]. 肿瘤防治研究, 2012, 39(2): 195-197.
- [5] 张建文;吴敬波. 原发性中枢神经系统肿瘤颅外转移状况 [J]. 肿瘤防治研究, 2012, 39(2): 238-240.
- [6] 裴新红;杨振;姜丽娜. 淋巴结分类情况下不同类型三阴性乳腺癌的预后分析 [J]. 肿瘤防治研究, 2012, 39(1): 51-53.
- [7] 孙建建;李胜棉;赵松;李光辉;王小玲. Survivin和Caspase-3在胰腺癌组织中的表达及与预后的关系[J]. 肿瘤防治研究, 2012, 39(1): 62-67.
- [8] 杨光华;赵晶;李磊;王天阳;张小艳;吕春秀;王凤安. BAG-1在大肠癌中的表达及其临床意义[J]. 肿瘤防治研究, 2012, 39(1): 71-74.
- [9] 黄东兰;谢菲;岑东芝;张积仁. 2001—2010年乳腺癌预后基因临床研究文献的计量学分析[J]. 肿瘤防治研究, 2012, 39(1): 91-94.
- [10] 邹国荣;曹小龙;张超;谢方云;李济时;彭苗. 非转移性T4期鼻咽癌的预后影响因素分析[J]. 肿瘤防治研究, 2011, 38(9): 1016-1022.
- [11] 黄耿文;丁翔. ESM-1作为肝癌血管内皮标志物的意义[J]. 肿瘤防治研究, 2011, 38(9): 1035-1037.
- [12] 黄少军;程正江;汪晶晶. 胃肠肿瘤患者手术前后外周血survivin mRNA定量检测的临床意义 [J]. 肿瘤防治研究, 2011, 38(9): 1050-1052.
- [13] 曾凡玉;谭文勇;徐姣珍;魏来;徐红斌;胡德胜. 63例 I ~III期肾细胞癌患者术后辅助治疗疗效及预后因素分析[J]. 肿瘤防治研究, 2011, 38(9): 1062-1065.
- [14] 王秋明;林英城;林雯;王鸿彪;林文照;林穗玲. 吉西他滨联合顺铂一线治疗晚期NSCLC的疗效及相关因素分析[J]. 肿瘤防治研究, 2011, 38(8): 940-943.
- [15] 杨廷桐;武俊芳;李秀杰;孙洁;侯夏宝. p53基因突变对非小细胞肺癌TSG101/MDM2信号通路的影响[J]. 肿瘤防治研究, 2011, 38(7): 774-777.