661~666.BCSC-1 过表达抑制肝癌Bel-7402细胞的增殖、侵袭、黏附和迁移[J].田俊芳,邸大琳,王洪伟,巩方,郇雪洁,鞠吉雨

BCSC-1 过表达抑制肝癌Bel-7402细胞的增殖、侵袭、黏附和迁移 点此下载全文

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摘要：

目的：研究人乳腺癌候选抑癌蛋白1基因（breast cancer suppressor candidate 1，BCSC-1 ）过表达对肝癌Be
影响，并探讨其可能的机制。方法：将pcDNA3.1/v5-HisB-BCSC-1和空质粒pcDNA3.1/v5-HisB转染的Bel-7402细胞作
为野生型组。MTT法、Transwell实验、体外黏附实验和划痕实验分别检测 BCSC-1 过表达对Bel-7402细胞增殖、侵袭
测BCSC-1过表达对Bel-7402细胞中与细胞增殖、黏附相关的 ICAM-1、PTTG 、骨桥蛋白（osteopontin， OPN ）
3.1/v5-HisB-BCSC-1后Bel-7402细胞中 BCSC-1 mRNA的表达水平显著高于空载体组和野生组细胞\[（10.58±0.56
0.01），均 P <0.01\]，成功制备 BCSC-1 稳定过表达的Bel-7402细胞株。与空载体组和野生型组相比， BCSC
h：（0.29±0.003） vs （0.34±0.014）、（0.35±0.013），均 P <0.05\]；侵袭率\[（76.20±1.85）%
±1.05）%，均 P <0.01）\]、黏附率\[（58.57±0.84）% vs （97.14±0.84）%、（100.00±1 30）%，
降低\[（116.60±10.58） vs （231.33±10.26）、（237.96±11.58）μm，均 P <0 01\]；同时过表达 B
RNA表达量明显降低\[（0.12±0.06） vs (0.95±0.14）、（1.00±0.08），均 P <0 01\]， ICAM-1、PTTG
过表达能够抑制Bel-7402细胞的增殖、侵袭、黏附和迁移能力，其机制可能与 OPN 基因表达下降有关。

关键词：乳腺癌候选抑癌蛋白1基因（ BCSC-1 基因） 肝癌 Bel-7402细胞 骨桥蛋白 增殖 侵袭 黏附 迁移

BCSC-1 overexpression inhibited the proliferation, invasion, adhesion and migration of hepatocell cells Download Fulltext

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Abstract:

Objective:To study the effects of overexpression of BCSC-1 gene on the proliferation, invasion, adhe
hepatoma carcinoma Bel-7402 cells, and to investigate the possible mechanism. Methods: Bel-7402 cells
HisB-BCSC-1 and pcDNA3.1/v5-HisB respectively as BCSC-1 group and empty vector group, and the wild-
Proliferation, invasion, adherence and migration abilities of the Bel-7402 cells were detected by MTT ass
experiment in vitro and scratch test, respectively. Real-time PCR was performed to detect the expressior
), ICAM-1, PTTG mRNA, which were correlated with the cell growth and adhesion in Bel-7402 cells.
pcDNA3.1/v5-HisB-BCSC-1, the expression of BCSC-1 mRNA in Bel-7402 cells was significantly raised cc
group and the wild-type group (\[10.58±0.56\] vs \[1.10±0.22\], \[1.00±0.01\]; all P <0.01). Th
overexpressing BCSC-1 was successfully established. Compared with the empty vector group and wild
cells in the BCSC-1 group was obviously slower (72 h: \[0.29±0.003\] vs \[0.34±0.014\], \[0.35±0.0
rate (\[76.20±1.85\]% vs \[93.42±3.24\]%, \[100 00±1 05\]%; all P <0.01) and the adhesion
\[97.14±0.84\]%, \[100.00±1 30\]%; all P <0.01) were obviously decreased, the migratory distanc
(\[116.60±10.58\] vs \[231.33±10 26\], \[237.96±11.58\] μm; all P <0.01\]. The expression of
which the BCSC-1 was up-regulated was significantly decreased (\[0.12±0.06\] vs \[0.95±0.14\], \[
significant changes were observed in the expression of ICAM-1 and PTTG mRNA. Conclusion: Overe
the proliferation, invasion, adherence and migration abilities of Bel-7402 cells, which may be related to t
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Keywords:breast cancer suppressor candidate 1 gene (BCSC-1) hepatoma Bel-7402 cells osteopontin proliferation invasion adbesion migration