沉默GCB型弥漫大B细胞淋巴瘤细胞中AFAP1-AS1的表达对细胞增殖和凋亡的影响

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Title: **Effect of AFAP1-AS1 expression on cell proliferation and apoptosis in silencing GCB type diffuse large B-cell lymphoma cells**

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摘要: 目的：探讨沉默GCB弥漫型大B细胞淋巴瘤（diffuse large B cell lymphoma,DLBCL）中AFAP1-AS1的表达对细胞增殖和凋亡的影响。方法：培养GCB-DLBCL细胞至对数生长期后转染OCI-Ly1细胞系，建立的GCB-DLBCL细胞系对AFAP1-AS1表达进行沉默；实验设立3组，实验组为腺病毒感染细胞，sh-NC无关序列腺病毒感染细胞组为无关序列对照组，未感染腺病毒细胞组为空白组，应用PCR法检测AFAP1-AS1表达水平、CCK-8法测定细胞增殖情况、流式细胞术检测细胞凋亡情况，对比检测结果。结果：AFAP1-AS1表达水平检测结果显示：三种shRNA序列干扰效率均较无关序列对照组（sh-NC）强，差异有统计学意义（P < 0.05）；采用CCK-8法检测各组细胞凋亡情况，结果显示：经腺病毒sh3-AFAP1-AS1感染后，OCI-Ly1细胞系中实验组细胞吸光度较无关序列对照组和空白组显著降低，下调AFAP1-AS1可抑制GCB-DLBCL细胞的增殖（P < 0.05）；采用流式细胞仪检测各组细胞凋亡情况，结果显示：经sh3-AFAP1-AS1和sh-NC转染后，OCI-Ly1细胞实验组凋亡率明显高于无关序列对照组和空白组，下调AFAP1-AS1可诱导GCB-DLBCL细胞凋亡（P < 0.05）。结论：沉默GCB-DLBCL细胞中的AFAP1-AS1表达能有效抑制细胞增殖，诱导细胞凋亡，或可作为GCB-DLBCL治疗的靶目标。

Abstract: Objective:To investigate the effect of AFAP1-AS1 expression on cell proliferation and apoptosis in diffuse large B cell lymphoma (DLBCL) with silent germinal center (GCB).Methods:Adenovirus samples were prepared.The expression of AFAP1-AS1 was required to be silenced,and OCI-Ly1 cell lines were transfected after the logarithmic growth of cultured GCB-DLBCL cells.The established GCB-DLBCL cell lines were required to silence the expression of AFAP1-AS1 through relevant operations.The experimental group was adenovirus infected cells.The sh-NC unrelated sequence adenovirus infected cells was the unrelated sequence control group,and the uninfected adenovirus cells were the blank group.The expression level of AFAP1-AS1 was detected by PCR.Cell proliferation was determined by CCK-8,and cell apoptosis was detected by flow cytometry.Results:AFAP1-AS1 expression level showed that the interference efficiency of the three shRNA sequences was stronger than that of the unrelated sequence control group (sh-NC),and the difference was statistically significant (P < 0.05).Cell apoptosis in each group was detected by CCK-8 method.The results showed that after adenovirus sh3-AFAP1-AS1 infection,the absorbance of cells in OCI-Ly1 cell line was significantly lower than that in the control group and the blank group.The cell proliferation of GCB-DLBCL was inhibited by down-regulating AFAP1-AS1 (P < 0.05).Flow cytometry was used to detect the apoptosis of cells in each group.The results showed that after sh3-AFAP1-AS1 and sh-NC transfection,the apoptosis rate of OCI-Ly1 cells in the experimental group was significantly higher than that in the unrelated sequence control group and the blank group,and the apoptosis of GCB-DLBCL cells could be induced by down-regulating AFAP1-AS1 (P <

0.05).Conclusion:Silencing the expression of AFAP1-AS1 in GCB-DLBCL cells can effectively inhibit cell proliferation,induce apoptosis,or serve as a target for GCB-DLBCL therapy.

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