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55-58. IL-18基因增强肿瘤抗原致敏DC诱导的CTL特异性杀伤肝癌细胞[J]. 杨静悦, 曹大勇, 刘文超, 斯小明. 中国肿瘤生物治疗

IL-18基因增强肿瘤抗原致敏DC诱导的CTL特异性杀伤肝癌细胞 [点此下载全文](#)

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摘要:

目的: 探讨腺病毒介导的白细胞介素 18(IL 18) 基因转染能否使肿瘤抗原冲击的树突状细胞(dendritic cell, DC) 在体外 18 的重组腺病毒载体感染经肝癌细胞株HepG2冻融抗原致敏的DC(AdIL 18 HepG2/DC), FACS分析AdIL 18 HepG2/DC分泌水平, <sup>3</sup>H TdR掺入法检测T淋巴细胞增殖能力, MTT法检测细胞毒性T淋巴细胞杀伤效应。结果: AdIL 18 HepG2/DC分泌IL 18、CD80、CD86以及HLA DR; 较未经IL 18转染的DC分泌较高水平的IL 18。AdIL 18 HepG2/DC能非常有效地刺激T淋巴细胞增殖(均 P < 0.05)。当靶细胞为HepG2时, AdIL 18 HepG2/DC的杀伤能力显著强于AdIL 18DC、HepG2/DC、AdIzccZ/DC及DC(均 P < 0.05)。当靶细胞为HepG2时, AdIL 18 HepG2/DC的杀伤能力显著强于AdIL 18DC、HepG2/DC、AdIzccZ/DC及DC(均 P < 0.05), 并且其杀伤能力与效应细胞数量成正比。结论: IL 18 基因转染且肝癌抗原致敏的DC

关键词: [树突状细胞](#) [肝癌](#) [白细胞介素-18](#) [肿瘤抗原](#)

Interleukin-18 enhances specific antitumor activity of CTL induced by tumor antigen pulsed dendritic cells

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Abstract:

Objective: To study whether interleukin(IL) 18 can promote tumor antigen pulsed dendritic cells (DCs) in killing hepatocellular carcinoma(HCC) in vitro. Methods: The recombinant adenovirus expression plasmid AdIL 18 pulsed by HepG2 lysates (AdIL 18 HepG2/DC). The surface molecules of AdIL 18 HepG2/DCs were analyzed in culture supernatant of AdIL 18 HepG2/DCs were measured by ELISA. The ability of AdIL 18 HepG2/DC to stimulate autologous T lymphocytes was evaluated by <sup>3</sup>H TdR assay. The in vitro CTL antitumor activity induced by AdIL 18 HepG2/DC was detected by MTT. Results: IL 18 promoted expression of CD1a, CD11c, CD80, CD86 and HLA DR on untransfected DCs. AdIL 18 HepG2/DCs secreted more IL 18 in vitro compared with untransfected DCs. AdIL 18 HepG2/DCs stimulated proliferation of autologous T cells (CPM being 228 018 ± 1 079); the stimulating effect was significantly stronger than that of AdIL 18DC, HepG2/DC, AdIzccZ/DC, and DC (all P < 0.05). CTL induced by TAA pulsed/IL 18 modified DCs showed higher cytotoxicity against HepG2 cells compared with that induced by other DCs. Conclusion: AdIL 18 HepG2/DCs can induce specific CTL in killing hepatocellular carcinoma HepG2 cell line.

Keywords: [dendritic cell](#) [hepatocellular neoplasms](#) [interleukin 18](#) [tumor antigen](#)

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