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摘要:

目的: 探究IL-2、IFN- α 和IFN- γ 对人肾透明细胞癌786-O细胞B7-H4表达的影响。方法: IL-2、IFN- α 、IFN- γ 处理786-O细胞24 h后, RT-PCR法检测 B7-H4 mRNA的表达, ELISA法、免疫细胞化学法、流式细胞术检测B7-H4蛋白的表达。结果: RT-PCR结果显示, IL-2组 (0.75 ± 0.06)、IFN- α 组 (0.68 ± 0.05)、IFN- γ 组 (0.95 ± 0.08) 786-O细胞中B7-H4 mRNA的表达均明显高于未处理组细胞 (0.30 ± 0.03) ($P < 0.05$)。免疫细胞化学染色结果显示, 于786-O细胞膜与细胞质均可检测到B7-H4蛋白表达, IL-2、IFN- α 、IFN- γ 处理均可增加786-O细胞B7-H4蛋白的表达。ELISA结果显示, IL-2组 [(44.89 ± 0.97) ng/ml]、IFN- α 组 [(46.74 ± 2.25) ng/ml]、IFN- γ 组 [(47.31 ± 1.12) ng/ml] 786-O细胞上清液中分泌型B7-H4的表达明显高于未处理组 [(34.42 ± 1.69) ng/ml] ($P < 0.05$)。流式细胞术检测结果表明, IL-2组 [$(44.89 \pm 0.94)\%$]、IFN- α 组 [$(46.41 \pm 0.55)\%$]、IFN- γ 组 [$(54.18 \pm 1.42)\%$] 786-O细胞表面B7-H4蛋白的阳性表达率明显高于未处理组 [$(30.45 \pm 0.96)\%$] ($P < 0.05$)。结论: IL-2、IFN- α 、IFN- γ 在转录与翻译两个环节均可上调786-O细胞B7-H4的表达水平, 其中以IFN- γ 上调能力最强。

关键词: [肾透明细胞癌](#) [B7-H4](#) [IL-2](#) [IFN- \$\alpha\$](#) [IFN- \$\gamma\$](#) [肿瘤免疫](#)

Effect of IL-2, IFN- α and IFN- γ on expression of B7-H4 in clear cell renal cell carcinoma 786-O cells [Download Fulltext](#)

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Abstract:

Objective: To explore the influence of IL-2, IFN- α and IFN- γ on the expression of B7-H4 in clear cell renal cell carcinoma 786-O cells. Methods: Clear cell renal cell carcinoma 786-O cells were stimulated by IL-2, IFN- α and IFN- γ for 24 h. The expression of B7-H4 mRNA was detected by RT-PCR. The expression of B7-H4 protein was detected by ELISA assay, cytoimmunocytochemistry assay and flow cytometry. Results: RT-PCR result showed that the expression of B7-H4 mRNA in IL-2 (0.75 ± 0.06), IFN- α (0.68 ± 0.05) and IFN- γ (0.95 ± 0.08) group cells was significantly higher than that in the untreated group (0.30 ± 0.03) ($P < 0.05$). Immunocytochemistry showed that the expression of B7-H4 protein was detected both in the cell membrane and cytoplasm, and the expression of B7-H4 protein was up-regulated after stimulated by IL-2, IFN- α and IFN- γ . ELISA result showed that the expression of soluble B7-H4 protein in the supernatants of IL-2 (44.89 ± 0.97) ng/ml, IFN- α (46.74 ± 2.25) ng/ml and IFN- γ group cells (47.31 ± 1.12) ng/ml was significantly higher than that in the untreated group (34.42 ± 1.69) ng/ml ($P < 0.05$). Flow cytometry assay result showed that the positive expression rate of B7-H4 in IL-2 ($44.89 \pm 0.94\%$), IFN- α ($46.41 \pm 0.55\%$) and IFN- γ ($54.18 \pm 1.42\%$) group cells were significantly higher than that in the untreated group ($30.45 \pm 0.96\%$) ($P < 0.05$). Conclusion: IL-2, IFN- α and IFN- γ can up-regulate the expression of B7-H4, in which IFN- γ has the highest capacity.

Keywords: [clear cell renal cell carcinoma](#) [B7-H4](#) [IL-2](#) [IFN- \$\alpha\$](#) [IFN- \$\gamma\$](#) [tumor immunity](#)

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