

论文

4种刺激剂对小鼠腹腔巨噬细胞生成白细胞介素6的研究

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摘要:

用白细胞介素6(interleukin 6,IL-6)依赖细胞株B9的MTT法,研究了4种刺激剂PMA,A23187,fMLP和LPS对小鼠腹腔巨噬细胞生成及分泌IL-6的影响。分别检测了巨噬细胞培养上清液及胞溶部分IL-6的含量。结果表明,PMA(0.1~10μmol·L⁻¹),A23187(0.01~1μmol·L⁻¹),fMLP(0.025~2.5μmol·L⁻¹)均能促进巨噬细胞生成及分泌IL-6,且有量效关系。LPS(0.1~10μg·mL⁻¹)能增加巨噬细胞培养上清液中IL-6的含量,但对胞溶部分无影响。结果提示:巨噬细胞IL-6的生成及分泌与蛋白激酶C(PKC)和钙离子通道活化有关;LPS与其他3种刺激剂对胞溶部分IL-6生成的不同作用提示可能存在不同作用机制。

关键词: 白细胞介素6 B9细胞株 佛波酯 钙离子载体A23187 甲酰三肽 脂多糖

PRODUCTION AND SECRETION OF INTERLEUKIN 6 FROM STIMULATED PERITONEAL MACROPHAGES OF THE MOUSE

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Abstract:

In this paper, a bioassay method involving the interleukin 6 dependent murine hybridoma B9 cell line was used to detect the level of released and cell-associated interleukin 6 in resident peritoneal macrophages from the mouse. The phorbol ester, phorbol 12-myristate 13-acetate(PMA), the calcium ionophores A₂₃₁₈₇, the chemotactic peptide fMLP and lipopolysaccharide(LPS) were introduced in these experiments as stimulators. PMA, A₂₃₁₈₇ and fMLP were shown to induce a dose-dependent increase of both released and cell-associated interleukin 6, whereas, LPS caused increase of interleukin 6 activity in supernatants of cultured peritoneal macrophages of the mouse. The effects of PMA and A₂₃₁₈₇ suggested that the pathway of PKC and calcium is involved in the production and secretion of interleukin 6. The effects of fMLP and LPS provided evidence that they participated in the process of inflammation. The difference between LPS and the other three stimulators in cell-associated interleukin 6 activity might suggest a different mechanism of actions of generation of interleukin 6.

Keywords: B9 cell line Phorbol 12-myristate 13-acetate(PMA) A₂₃₁₈₇ fMLP LPS Interleukin-6

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1. 朱凤昌;姜蓉;张洋;吴剑波;李元.真菌来源白细胞介素6受体拮抗剂2520A的研究[J]. 药学学报, 2006,41(7): 662-665
2. 钟森;程桂芳;王文杰;周龙恩;朱秀媛;张均田.白三烯类化合物(Leukotrienes)对小鼠腹腔巨噬细胞生成白细胞介素6的影响[J]. 药学学报, 1998,33(5): 326-329
3. 鞠佃文;郑钦岳;曹雪涛;梅小斌;易杨华.商陆皂苷甲对大鼠Heymann肾炎的治疗作用及对细胞因子的影响[J]. 药学学报, 1999,34(1): 9-9
4. 李怡棠;钟森;邓永江;朱秀媛;程桂芳.IV型变态反应中白细胞介素6的表达及白藜芦醇的抑制作用[J]. 药学学报, 1999,34(3): 189-191
5. 钟森;程桂芳;赖春宁;洪海燕;朱秀媛.异丹叶大黄素和白藜芦醇对小鼠腹腔巨噬细胞白细胞介素6 mRNA表达的影响[J]. 药学学报, 1999,34(5): 329-332

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