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实验方法

R2细胞用于测定人白介素6受体的生物活性

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摘要 目的 确定可靠的筛选小分子人白介素6(IL-6)受体拮抗剂先导化合物的细胞模型。方法 分别用间接免疫荧光法和MTT检测法检测了R2细胞的人IL-6受体蛋白表达水平和对重组人白介素6（rhIL-6）的反应性。结果 检测到R2细胞具有高丰度的人IL-6受体蛋白表达并对rhIL-6具有极为灵敏的反应性和极高的亲和力；用R2细胞检测抗人IL-6单克隆抗体对rhIL-6的拮抗活性，发现单抗在20 mg·L^{-1}浓度下对rhIL-6所引起的R2细胞的增殖有很强的抑制作用，抑制率达92%。结论 R2细胞是可靠的筛选人IL-6受体拮抗剂的细胞模型。

关键词 细胞系, R2 受体, 白介素6 免疫荧光法, 间接

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R2 cells applied to measure human interleukin 6 receptor bioactivity

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Abstract

AIM To confirm R2 cells being reliable cell model to screen small molecular human interleukin-6(IL- 6) receptor antagonists. **METHODS** Indirect immunofluorescence method and MTT method were used to test the expression of human IL-6 receptor on R2 cells and the reaction of R2 cells to recombinant human IL-6(rhIL-6). **RESULTS** R2 cells expressed high level human IL- 6 receptor and it responsed to rhIL- 6 sensitively. Furthermore, when R2 cells were used to test the antagonistic activity of anti-IL-6 monoclonal antibody to rhIL-6, it showed that anti-IL- 6 monoclonal antibody can significantly antagonize the biological activity of rhIL- 6. **CONCLUSION** R2 cells are a reliable cell model to screen small molecular human IL-6 receptor antagonists.

Key words cells R2 receptors interleukin-6 immunofluorescence indirect

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