[1]胡欣春,徐建军,喻东亮,等.Wnt5a 在肺癌A549细胞球增殖和上皮间质转化中的作用及机制研究[J].第三军医大学学报,2014,36(18):1890-1894.

Hu Xinchun,Xu Jianjun,Yu Dongliang,et al.Role and mechanism of Wnt5a regulating proliferation and epithelial mesenchymal transition in A549 spheres[J].J Third Mil Med Univ,2014,36(18):1890-1894.

点击复制

Wnt5a 在肺癌A549细胞球增殖和上皮间质转化中的

分享到：

《第三军医大学学报》[ISSN:1000-5404/CN:51-1095/R] 卷: 36 期数: 2014年第18期 页码: 1890-1894 栏目: 论著 出版日期: 2014-09-30

Title: Role and mechanism of Wnt5a regulating proliferation and epithelial mesenchymal transition in A549 spheres

作者: 胡欣春; 徐建军; 喻东亮; 彭金华; 魏益平
南昌大学第二附属医院心胸外科; 江西省胸科医院胸外科

Author(s): Hu Xinchun; Xu Jianjun; Yu Dongliang; Peng Jinhua; Wei Yiping

Department of Cardiothoracic Surgery, the Second Affiliated Hospital of Nanchang University, Nanchang, Jiangxi Province, 330006; Department of Chest Surgery, Jiangxi Chest Hospital, Nanchang, Jiangxi Province, 330006, China

关键词: Wnt5a; 肺癌干细胞; 增殖; 上皮间质转化

Keywords: Wnt5a; cancer stem cells; proliferation; epithelial mesenchymal transition

分类号: R341; R730.23; R734.2

文献标志码: A

摘要:

目的 研究Wnt5a在A549细胞球增殖和EMT中的作用及相关机制。 方法 利用无血清培养出A549细胞球后应用流式细胞术对其进行$CD133^+CD44^+$表达检测。实验分为对照组、Wn5a组、p38组和Wnt5a+p38组。应用Western blot观察各组Wnt5a、p-p38、β-catenin、Vimentin和E-cadherin蛋白的表达变化，并利用MTT和裸鼠成瘤实验观察Wnt5a shRNA慢病毒感染前后A549细胞球的生长抑制率和成瘤能力。 结果 流式细胞术检测A549细胞球中$CD133^+CD44^+$阳性率为60.5%；Wnt5a蛋白在Wnt5a组和Wnt5a+p38组中的表达较对照组明显下调($P<0.05$)，p-p38蛋白、β-catenin蛋白、Vimentin蛋白在Wnt5a组、p38组和Wnt5a+p38组的表达明显低于对照组($P<0.05$)，而 E-cadherin蛋白在上述3组中的表达显著高于对照组($P<0.05$)。Wnt5a shRNA慢病毒感染A549细胞球12、24 h和48 h时抑制率显著高于对照组($P<0.05$)，并且该细胞的成瘤能力较对照组显著下调。 结论 下调Wnt5a表达可抑制A549细胞球的增殖及EMT能力，可望成为治疗非小细胞肺癌的靶点。

更新日期/Last Update: 2014-09-18

Abstract: Objective To deternine the role and mechanism of Wnt5a regulating the proliferation and epithelial mesenchymal transition (EMT) in lung cancer A549 spheres. Methods A549 spheres were cultured in serum-free medium for 2 weeks. $CD133^{+}CD44^{+}$ rate of those cells was detected by FACS. Four experimental groups including a control group, a Wnt5a group, a p38 group and a Wnt5a+ p38 group were designed. The protein expression of Wnt5a, p-p38, ß-catenin, vimentin and E-cadherin among the 4 groups was detected by Western blotting. The cell inhibitory rate and tumorigenicity were detected after Wnt5a shRNA lentivirus transfection of A549 spheres. Results $CD133^{+}CD44^{+}$ rate was 60.5% in A549 spheres and 1.65% in A549 cells. Wnt5a protein expression was significantly lower in the Wnt5a and Wnt5a+ p38 groups than in the control group (P<0.05). Compared to the control group, the protein expression of p-p38, ß-catenin and vimentin was obviously lower but that of E-cadherin was higher in the Wnt5a, p38 and Wnt5a+ p38 groups (P<0.05). The cell inhibitory rate was significantly higher and tumor size in node mice was remarkably smaller at 12, 24 and 48 h after Wnt5a shRNA lentivirus transfection (P<0.05). Conclusion Wnt5a expression down-regulation inhibits the proliferation and EMT of A549 spheres, and Wnt5a might be a novel target for treatment of non-small-cell lung cancer.

参考文献/References:

胡欣春，徐建军，喻东亮，等. Wnt5a 在肺癌A549细胞球增殖和上皮间质转化中的作用及机制研究[J].第三军医大学学报,2014,36(18):1890-1894.

相似文献/References:

[1]金俊余,孙建国,张岸梅,等.mmu-miR-294调控MMP3靶基因对LLC细胞侵袭迁移的影响[J].第三军医大学学报,2013,35(12):1200.
Jin Junyu,Sun Jianguo,Zhang Anmei,et al.Effect of mmu-miR-294 regulating its target gene MMP3 on invasion and migration in mouse lung cancer stem cells[J].J Third Mil Med Univ,2013,35(18):1200.