[1]幸宇,邓世雄,陈俊霞.沉默整合素连接激酶基因抑制TCA8113舌癌细胞生长和侵袭[J].第三军医大学学报,2013,35(15):1552-1557.

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Title: Silencing integrin-linked kinase inhibits growth and metastasis in human tongue cancer TCA8113 cells

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关键词: 整合素连接激酶; 人舌鳞癌细胞; 肿瘤生长; 转移; 侵袭

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摘要: 目的　研究沉默整合素连接激酶（integrin-linked kinase，ILK）基因表达，对人舌鳞癌细胞生长、侵袭和转移能力的影响。　方法　通过用ILK mRNA的特异性siRNA表达载体和无同源性的对照载体，在脂质体介导下稳定转染人舌鳞癌TCA8113细胞，分为TCA8113组、TCA8113 vector组和TCA8113 siILK组，通过筛选鉴定后，用MTT法、划痕试验和Transwell法分别检测细胞生长、迁移和侵袭能力，用Western blot分析细胞中ILK、p-Akt、p-GSK3β及Snail等的表达。　结果　沉默ILK基因表达显著抑制了细胞的生长、迁移和侵袭能力，接种的第48、72、96、120小时，TCA8113 siILK组的抑制率分别为17%、29%、

25%、42%，迁移能力较TCA8113组和TCA8113 vector组分别下降67%和66%，侵袭能力则较两个对照组下降了67%和68%， p-Akt、p-GSK3β及Snail的表达较TCA8113组和TCA8113 vector组分别降低了45%和53%，57%和61%，74%和73%。 结论 抑制ILK基因的表达可通过Akt/GSK3β/Snail途径，显著抑制人舌鳞癌TCA8113细胞的生长、迁移和侵袭潜能，可作为治疗人舌鳞癌的靶蛋白。

Abstract: Objective To investigate the effect of silencing integrin-linked kinase (ILK) on the proliferation, migration and invasion of human tongue squamous cancer TCA8113 cells. Methods ILK siRNA expression plasmid and a non-homologous vector (negative control) were transferred into TCA8113 cells, respectively. Then the transfected cells were screened and identified. MTT assay, wound healing experiment and transwell assay were employed to measure cell proliferation, migration and invasion. The expression of p-Akt, p-GSK3β and Snail was detected by Western blotting. Results Inhibition of ILK expression obviously suppressed TCA8113 cell proliferation, migration and invasion, as well as down-regulated the expression of p-Akt, p-GSK3β and Snail. The inhibitory rates at 48, 72, 96 and 120 h were 17%, 29%, 25% and 42% in TCA8113 siILK group, respectively. The migration capacity was decreased by 67% and 66% compared with the other two control groups. The invasion capacity was decreased by 67% and 68% compared with the other two control groups. The expression of p-Akt, p-GSK3β and Snail was decreased by 45% and 53%, 57% and 61%, 74% and 73%, compared with the other two control groups, respectively. Conclusion Silencing ILK inhibits the proliferation, migration and invasion of TCA8113 cells through