

Pleckstrin-2基因在肺腺癌細胞之功能分析 = Functional Analysis of Pleckstrin-2 Gene in Lung Cancer Cells

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摘要

肺癌在世界上是最常發生的癌症之一，癌細胞的轉移是肺癌患者存活的關鍵因素。癌細胞轉移過程有許多複雜步驟的參與，其中包括細胞附著、細胞生長、凋亡以及血管新生。為瞭解癌轉移的分子作用機制，實驗室先前使用了模式細胞分別是低轉移性肺腺癌CL1-0細胞株及高轉移性的肺腺癌CL1-5細胞株，以microarray方法分析，其中發現Pleckstrin 2 (PLEK2) 在CL1-5肺癌細胞株中表現量較高。此外，PLEK2在肺癌方面的角色尚不清楚，推測可能與細胞的轉移有關。因此我們在肺腺癌CL1-5細胞株中，使用shRNA建立穩定抑制PLEK2基因的系統，shRNA是一種透過RNAi的方式使目標基因無法表現的技術，並且利用建立好的細胞株進行功能分析。我們研究結果顯示抑制PLEK2基因會抑制肺腺癌遷移、入侵、增生和癌化的能力，此外在培養細胞方面也發現EMT的現象。這些結果幫助我們了解PLEK2基因在肺癌細胞所扮演的角色，PLEK2潛在的作用機制可能可以提供新的抗癌療法。

關鍵詞：肺癌、轉移、Pleckstrin 2、PI3K、上皮間質轉換

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