



國家衛生研究院 研究成果行銷摘要表

技轉及育成中心連絡人：吳萃慧 電話：(037)206-166 # 33202 E-mail：tsuiwu@nhri.edu.tw

技術名稱	適應 Vero 細胞的克沙奇 A16 型病毒株及其生產之技術
發明人	劉家齊、周彥宏
所屬單位	感染症與疫苗研究所
行銷摘要 （一百字以內，非機密性，強調市場運用性，以提供外界參考用）	
<p>從臨床檢體分離之病毒樣本經由細胞繼代培養篩選後，獲得適應 Vero 細胞的克沙奇 A16 型病毒株並鑑定其特徵。此項研發成果包含上游無血清生產技術與下游純化技術。後續可用於發展克沙奇 A16 型原型疫苗病毒株，用於控制克沙奇 A16 型病毒的疫情流行。</p>	
可能的應用範圍與市場潛力	
<p>克沙奇 A16 型病毒疫苗尚在研製階段尚未有產品上市，此項成果可用於發展克沙奇 A16 型原型疫苗株與疫苗之生產，可能市場範圍在全球有疫情流行的國家。繼腸病毒 A71 型疫苗後，未來幾年內將加入克沙奇 A16 型抗原發展多價手足口症病毒疫苗，預估市場包括臺灣、東南亞與中國大陸。</p>	
與現有之技術相比較，本技術構想的競爭優勢	
<p>經由篩選而適應 Vero 細胞的克沙奇 A16 型病毒株能以無血清培養基於 Vero 細胞株進行培養，可以減輕純化負荷並避免胎牛血清污染。可利用現有的 Vero 細胞系統製備，經純化的產物可與腸病毒 A71 型疫苗混合形成多價型手足口症病毒疫苗。</p>	
智財權狀態	
<p>以營業秘密保護</p>	





Summary of Invention Marketing Plan

TTIC contact person: Tsui-hui Wu Tel : 886-37-206-166 # 33202 E-mail : tsuiwu@nhri.edu.tw

Title	Production of Vero cell-adapted Coxsackievirus A16 strains
Inventor (s)	Chia-Chyi Liu; Yen-Hung Chow
Institute(Division)	National Institute of Infectious Diseases and Vaccinology, National Health Research Institutes, Zhunan Town, Miaoli County, Taiwan.
Brief Description of Marketing Plan (≤ 100 words of non-confidential information)	
<p>Several Coxsackievirus A16 strains had passaged and adapted from clinical isolates by Vero cell culture. The procedures for Vero cell-adapted Coxsackievirus A16 strains, including upstream production and downstream purification, were developed. These Vero cell-adapted Coxsackievirus A16 strains were identified, which have the potential to be used as the prototype vaccine strains for the control of the epidemic of Coxsackievirus A16.</p>	
Fields of Application and Market Potential	
<p>The Coxsackievirus A16 virus vaccine is still in development and no products have been launched yet. Our research results include the identification of Vero-adapted Coxsackievirus A16 strains and the virus production using serum-free Vero cell culture system. The anticipated markets include countries where the Coxsackievirus A16 is epidemic. Following the marketing of the Enterovirus A71 vaccine, in the next few years, Coxsackievirus A16 antigen will be added to develop a multivalent hand, foot and mouth disease virus vaccine. The market is expected to be in Taiwan, Southeast Asia and mainland China.</p>	
Advantages when compared with the existing technologies	
<p>Vero cell-adapted Coxsackievirus A16 virus is propagated by Vero cells in a serum-free medium, which can reduce the purification load and avoid contamination of fetal bovine serum. CV-A16 antigens can be prepared by using the qualified, conventional Vero cell culture system, and the purified product can be mixed with the Enterovirus A71 vaccine to form a multivalent hand, foot and mouth disease virus vaccine.</p>	
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Protected by trade secrets.	

