

## 財團法人農業科技研究院 可移轉技術簡介

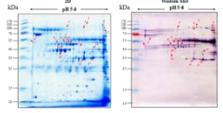
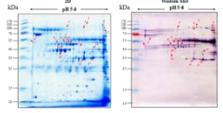
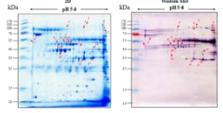
技術名稱 Technology Term	豬鼻黴漿菌次單位疫苗 <i>Mycoplasma hyorhinis</i> Subunit Vaccine								
技術發明人 Technology Representative	林俊宏、陳正文、王志鵬、許瓊文、黃文正、謝明偉、彭子庭 Jiunn-Horng Lin, Zeng-Weng Chen, Jyh-Perng Wang, Chiung-Wen Hsu, Weng-Zeng Huang, Ming-Wei Hsieh, Tzu-Ting Peng								
技術應用領域 Technology Field	動物疫苗 Animal vaccine								
技術簡介 Technology Description	<p>豬鼻黴漿菌是造成全球豬黴漿菌性肺炎之病原之一，且會誘發關節炎與多發性漿膜炎之發生。農科院利用免疫蛋白質體技術、可溶性抗原生產技術、新型佐劑技術及疫苗效力評估技術等關鍵核心技術開發創新前瞻之豬鼻黴漿菌次單位疫苗。豬隻實驗結果顯示，單一重組抗原即可降低豬鼻黴漿菌所引起之臨床症狀；以三個重組抗原組合而成之疫苗，更可提升次單位疫苗之免疫保護效果。新穎豬鼻黴漿菌次單位疫苗為獨步全球之研發成果。該次單位疫苗具有生產容易、低成本、高安全性、有效及全球唯一之競爭優勢。</p> <p><i>Mycoplasma hyorhinis</i> is one of the etiological agent of mycoplasmal pneumonia and also induces arthritis and polyserositis in affected pigs. ATRI used four core technologies which contain immunoproteomic technology, soluble antigen production technology, novel adjuvant technology, and vaccine efficacy evaluation technology to develop an innovative <i>M. hyorhinis</i> subunit vaccine. Animal trial data indicated that a single recombinant <i>M. hyorhinis</i> antigen can provide an efficacy to reduce the clinical signs caused by <i>M. hyorhinis</i>, while three antigens are more effective. These finding are highly innovative in the global animal vaccine market. The competitive advantages of this subunit vaccine include ease of production, lower cost, safe, highly effective, and globally unique.</p>								
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技轉相關圖/表	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #c6e2ff; color: black; text-align: center; padding: 5px;">Immunoproteomic technology</th> <th style="background-color: #ff9999; color: black; text-align: center; padding: 5px;">Soluble antigen production technology</th> <th style="background-color: #ffd966; color: black; text-align: center; padding: 5px;">Novel adjuvant technology</th> <th style="background-color: #d9eaf7; color: black; text-align: center; padding: 5px;">Vaccine efficacy evaluation technology</th> </tr> </thead> <tbody> <tr> <td style="text-align: center; padding: 10px;">  </td> <td style="text-align: center; padding: 10px;">  </td> <td style="text-align: center; padding: 10px;">  </td> <td style="text-align: center; padding: 10px;">  </td> </tr> </tbody> </table>	Immunoproteomic technology	Soluble antigen production technology	Novel adjuvant technology	Vaccine efficacy evaluation technology				
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圖 1. 疫苗開發四大關鍵核心技術

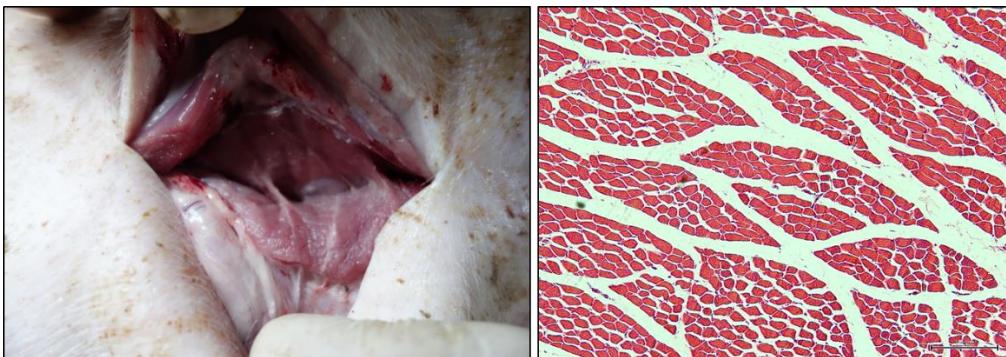


圖 2. 免疫後注射部位無疫苗殘留與發炎反應

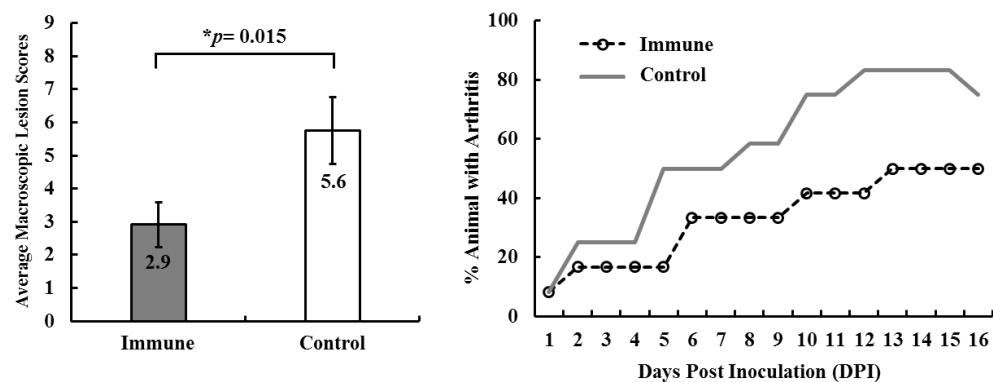


圖 3. 疫苗可減緩病變發生

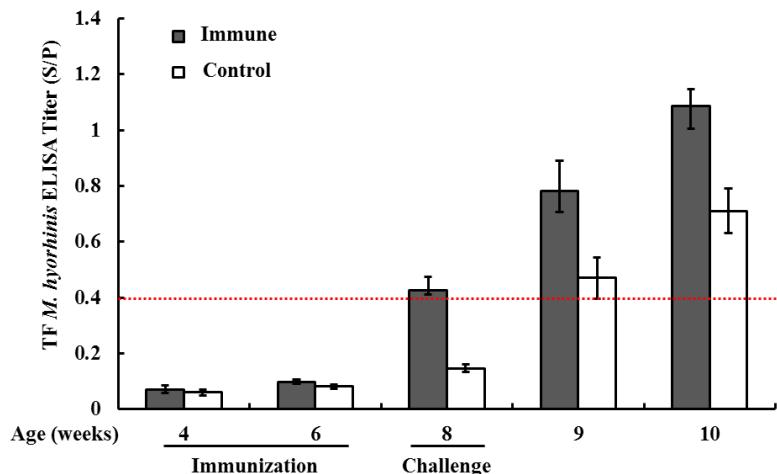


圖 4. 疫苗於攻毒前可誘發抗豬鼻黴漿菌抗體

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