

## 附件一、技術推廣表



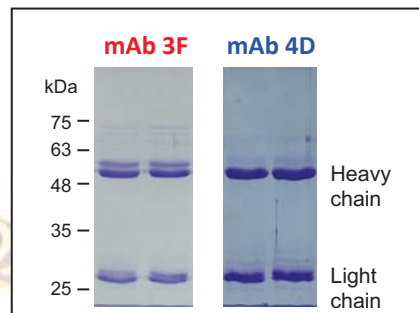
### 抗新型冠狀病毒棘蛋白之純化後單株抗體（非細胞株）

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簡歷：

[http://www.bst.ntu.edu.tw/News\\_Content\\_n\\_42168\\_s\\_60118.html](http://www.bst.ntu.edu.tw/News_Content_n_42168_s_60118.html)



#### 市場及需求：

由新型冠狀病毒 SARS-CoV-2 感染所導致之 COVID-19 已造成全球超過 2600 萬確診病例，及超過 85 萬的死亡病例，是當前衝擊人類最鉅的流行病。因此，研發高靈敏度與高準確性之生醫檢測平台，有亟迫切之需要。其中，抗 SARS-CoV-2 棘刺蛋白（Spike protein）之單株抗體可研發成快篩試劑或各式新穎的精準生醫檢測平台。

#### 技術摘要：

單株抗體可應用於疾病的分子檢測，但是為了提高單株抗體的應用性、偵測靈敏度及減少抗體用量，常需要將單株抗體進行標定或修飾。因此，單株抗體的專一性及純度將是單株抗體應用的關鍵因子。本發明為抗 SARS-CoV-2 棘蛋白之純化後單株抗體 3F（0.5 mg）及單株抗體 4D（0.5 mg），合計共 1 mg。

#### 優勢：

1. 本發明之單株抗體（編號 3F 及 4D）對 SARS-CoV-2 棘刺蛋白具有高專一性。
2. 單株抗體（編號 3F 及 4D）可結合於 SARS-CoV-2 棘蛋白之不同 Epitope。
3. 單株抗體（編號 3F 及 4D）已利用 FPLC 純化及定量，可直接應用於生醫分析，不需再經過前處理。

#### 競爭產品：

1. 本發明為自行研發之單株抗體，其結合於 SARS-CoV-2 棘蛋白之 Epitope 具特異性，市場上無相同之產品。
2. 市場上之相關競爭產品（但非與本發明相同之產品）請參見：  
<https://www.sinobiological.com/antibodies/cov-spike-40591-mm42>

#### 專利簡述：

本研究團隊具有二十年以上之抗體研發經驗。

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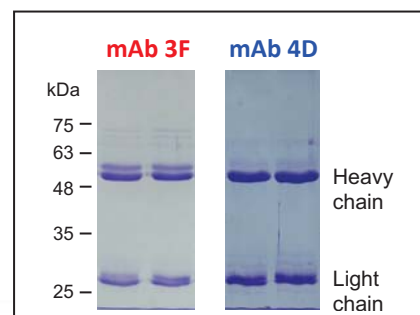


The purified mAbs against SARS-CoV-2 Spike protein

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### Experience:

[http://www.bst.ntu.edu.tw/News\\_Content\\_n\\_42168\\_s\\_60118.html](http://www.bst.ntu.edu.tw/News_Content_n_42168_s_60118.html)



### Market Needs:

COVID-19 caused by the infection of SARS-CoV-2 has caused more than 26 million confirmed cases and more than 850,000 deaths worldwide. It is currently the biggest epidemic threat for humans. Therefore, there is an urgent need to develop diagnostic platforms with high sensitivity and high accuracy. Among them, monoclonal antibodies (mAbs) against SARS-CoV-2 Spike protein can be developed into quick screening reagents or various novel precision diagnostic platforms.

### Our Technology:

MAb can be applied for molecular detection of diseases. In order to improve the applicability and detection sensitivity, and reduce the consumption of mAbs, it is often necessary to modify the mAbs. Therefore, the specificity and purity of mAbs will be the key factors for the potential applications. The present invention includes two purified mAbs 3F (0.5 mg) and 4D (0.5 mg) which can specifically recognize the SARS-CoV-2 Spike protein.

### Strength:

1. The present innovative mAbs 3F and 4D exhibits great specificity against SARS-CoV-2 Spike protein.
2. MAb 3F and 4D binds to different antigenic epitopes on SARS-CoV-2 Spike protein.
3. MAb 3F and 4D have been purified by FPLC and can be directly applied for biomedical analysis without any pre-treatment.

### Competing Products:

The present mAbs 3F and 4D were developed at NTU. The unique antigenic epitopes on SARS-CoV-2 Spike protein recognized by mAbs 3F and 4D have not been revealed elsewhere. The competitive product, but not the same product, can be seen on <https://www.sinobiological.com/antibodies/cov-spike-40591-mm42>

### Intellectual Properties:

The research team has more than twenty-year experiences in antibody technology.

### Contact:

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