



Fapon Biotech makes persist efforts to deal with the global pandemic new challenge, introduces COVID-19 Variant E484K POCT Solution for the effective differentiation of E484K and non-E484K infection. Previously, the company took a significant innovative step **for being the first in the world in launching POCT Solution for variant B.1.1.7 (VUI 202012/01) and wild-type virus differentiation** (<https://bit.ly/3qDsmky>). These solutions using POCT mechanism to offer additional values to the variant diagnosis using genome sequencing and PCR technologies, being an excellent mean to fight against the global-spread mutant viruses.

New challenges in E484K and other mutant strains identification

The 'escape mutation' E484K that firstly found in 501Y.V2 (B.1.351) and 501Y.V3 (B.1.1.28) variant strains in the South African and Brazilian has now spread to UK, Mayotte, Belgium, France, Switzerland and other countries according to [GISAID](https://gisaid.org).

E484K is named 'an escape mutation' because it helps the virus bypass the body's immune defences and weakens the protective effect of some vaccines. In February, South Africa halt its rollout of the Oxford-AstraZeneca vaccine after [a study showed "disappointing" results](#) against the new variant. [A study from Cambridge University](#) has even confirmed the combination of more transmissible variant B.1.1.7 and E484K mutation substantially increases the amount of serum antibody needed to prevent infection of cells.

Moreover, [the Manaus city in Brazil](#) that thought to reach herd immunity in the first wave are now experiencing a second outbreak, and the situation is fuelling by the COVID-19 variants. Nevertheless, [only 0.03% of cases](#) in Brazil underwent genomic sequencing for variant identification due to the lacking of resources.

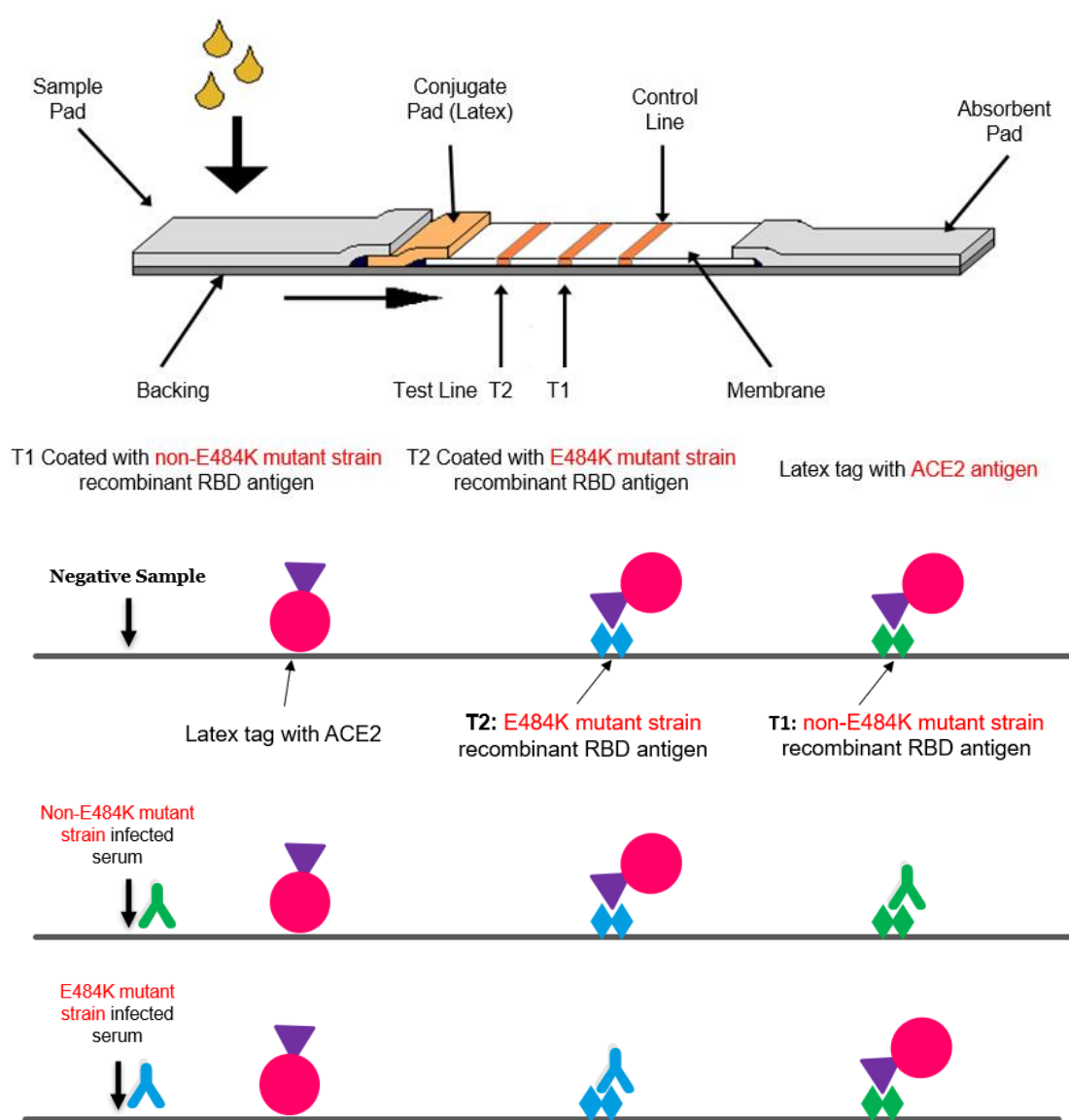
The fight of COVID-19 is facing new challenges caused by complex variants and mutation. As a mainstream COVID-19 raw material supplier to the global top-profile reagent manufacturers, Fapon Biotech continues to keep a close watch on the ever-changing pandemic situation and introduce products for other mainstream strain identification.

* Click on underlined keywords to read more

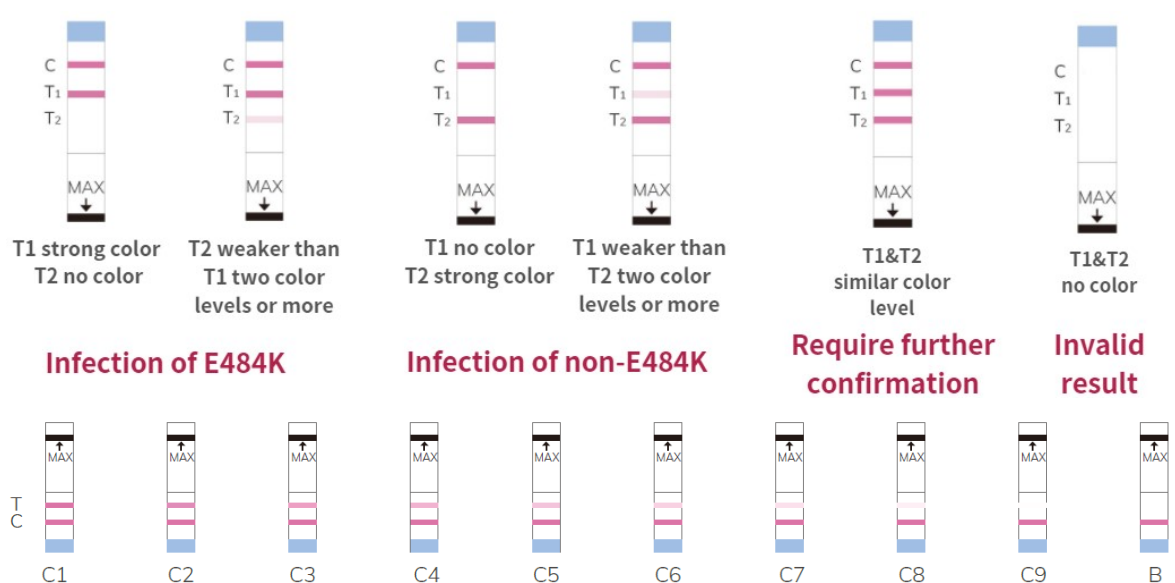
Fapon Biotech COVID-19 Variant E484K POCT Solution

Principle

Use E484K mutant strain recombinant RBD antigen to detect the escape phenomenon of antibodies produced by the non-E484K mutant strain infection to distinguish E484K and non-E484K mutant strain



Result Illustration



Note: the higher the number, the lower the activity, B refers to undetectable

Product Information

Product Description	Purity	Application
Non-E484K mutant strain recombinant RBD antigen	≥90%	Coating antigen 1 (T1)
E484K mutant strain recombinant RBD antigen		Coating antigen 2 (T2)
ACE2 antigen		Conjugate

Performance

Type of Verification	Sample	Quantity	Result
Negative blood sample	Random clinical sample	198	T1&T2 color levels change within C4 to C5+
	Hypertensive patient sample	72	
	Positive pneumonia patient sample	39	
COVID-19 patient serum	Non-E484K mutant strain sample	17	T1 weaker than T2 two color levels or more
	E484K mutant strain sample	Coming soon	

