

New
Covid-19
test kit by
DSO and
A*Star



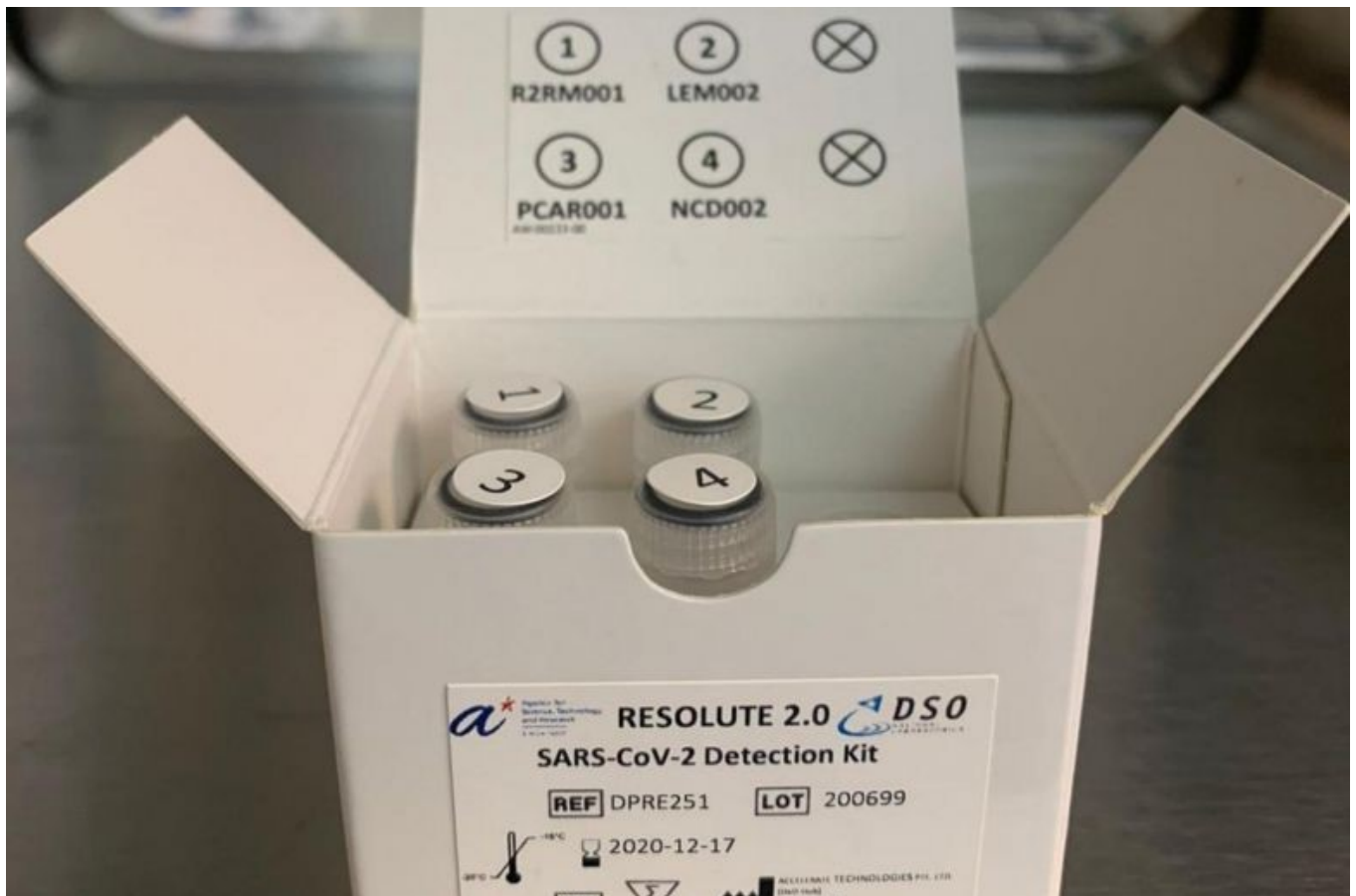
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DSO, A*Star develop new test kit that cuts processing time



The Resolute Covid-19 test kit developed by DSO National Laboratories and A*Star can deliver test results in about 1.5 hours.
PHOTO: A*STAR

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Scientists here have developed an improved Covid-19 test kit that can deliver results more quickly - halving processing time from about four hours to less than two.

The new kit also uses fewer raw materials that are limited in supply during the pandemic.

The direct polymerase chain reaction (PCR) test, called Resolute, was the result of a joint project by DSO National Laboratories and the Agency for Science, Technology and Research (A*Star) announced yesterday. A PCR test detects the presence of viral genetic material from a sample taken from a patient, such as from the nose or back of the throat.

Unlike the standard PCR test, Resolute can be conducted with a basic laboratory set-up and entry-level technicians.

The process is also safer for technicians. Exposure to the virus is reduced as technicians no longer need to mix the sample with reagents, and go through several rounds of "washing" with reagents, to extract a genetic material for analysis.

With Resolute, technicians just need to add the patient's sample to a specially formulated pre-mixed solution, before it is placed into the PCR machine for analysis.

With earlier results, patients can be given medical treatment more quickly if needed.

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The cost of each Resolute kit is expected to be competitive compared with standard PCR test kits.

Ms Ng Sock Hoon, laboratory director of the verification and attribution laboratory at DSO, said there will be cost savings as less manpower and resources will be required for genetic material extraction.

Resolute received provisional authorisation from the Health Sciences Authority in April.

The Diagnostic Development Hub, a national platform hosted by A*Star, is working with a local medtech company to produce and deploy it, although no timeline was given.

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- The collaboration on Resolute was part of a strategic partnership between DSO and A*Star that was inked earlier this year. It was the first time both organisations have come together to develop a product for public health needs.

A*Star chief executive Frederick Chew said that Resolute was a

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- › vital addition to Singapore's testing capacity.

DSO chief executive Cheong Chee Hoo said: "We are able... to quickly develop this capability in less than three months to strengthen Singapore's fight against Covid-19."

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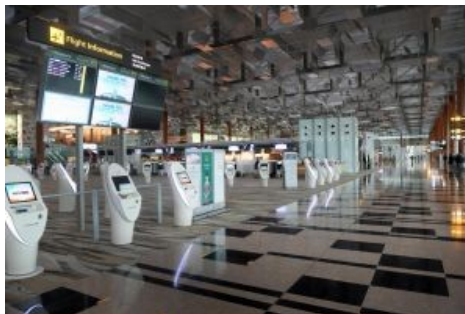
- › Dr Weng Ruifen, chief of product development and project management for the Diagnostics Development Hub at A*Star, said that with Resolute, raw material needs are diversified.

"This increases our resilience in the fight against Covid-19," said Dr Weng.

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