

How does PCR testing for COVID-19 work?

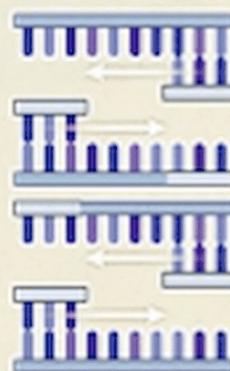
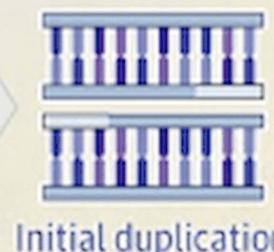
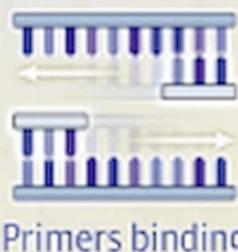
Polymerase chain reaction (PCR) testing can detect even very small amounts of viral genetic material in a sample by duplicating it many times over through a complex laboratory process called amplification.

- 1 A test sample is swabbed from the back of the nose and processed to isolate genetic material.



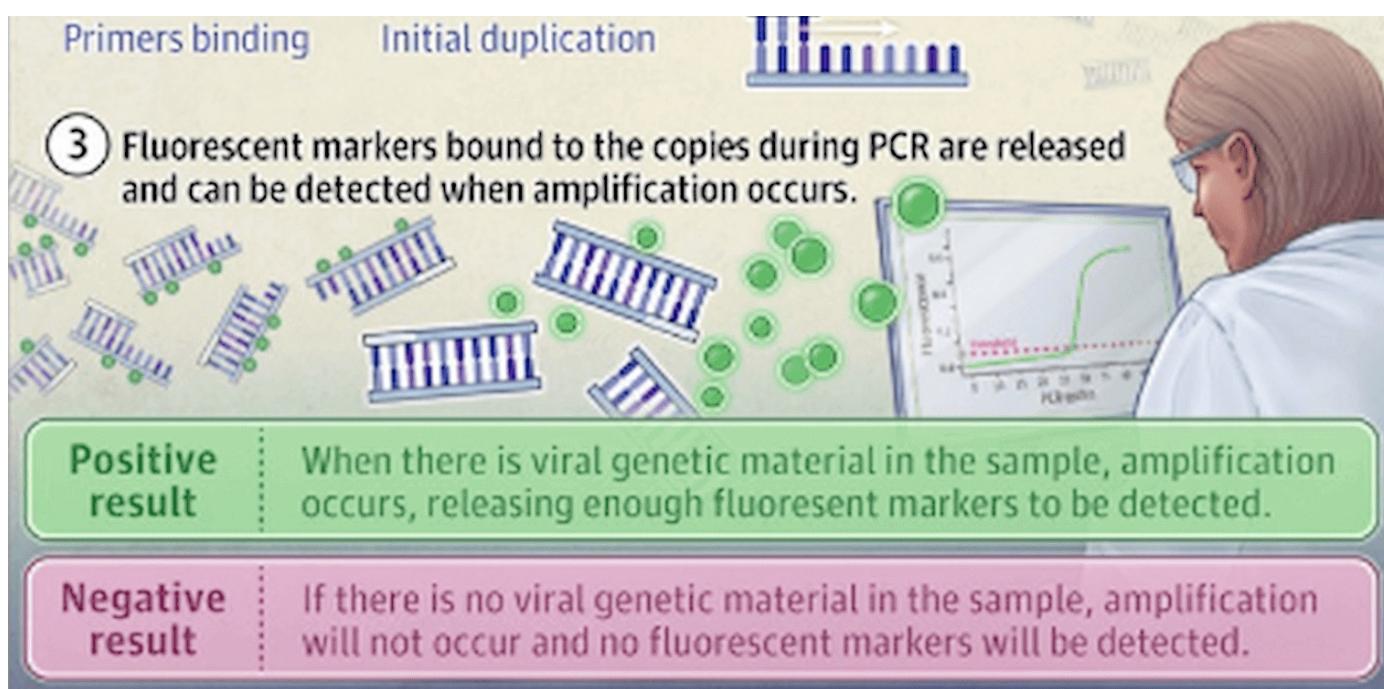
2

Small pieces of specifically engineered genetic material, called primers, are introduced and bind to the isolated viral genetic material, initiating amplification.



Amplification creating millions of copies





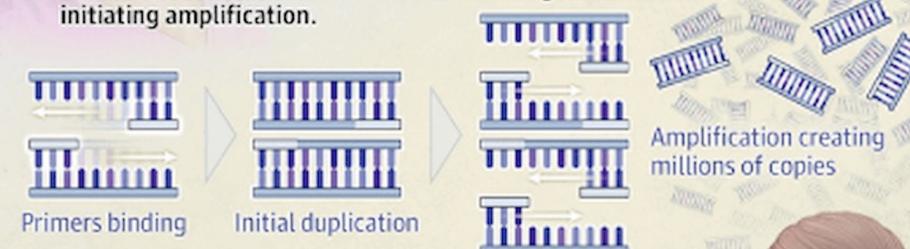
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- 3 Fluorescent markers bound to the copies during PCR are released and can be detected when amplification occurs.



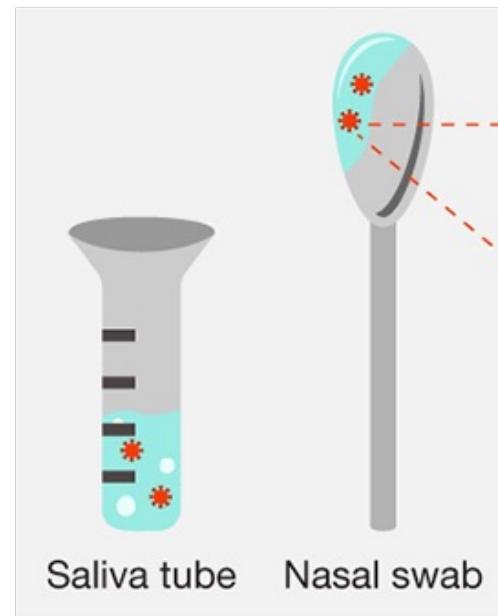
Positive result

When there is viral genetic material in the sample, amplification occurs, releasing enough fluorescent markers to be detected.

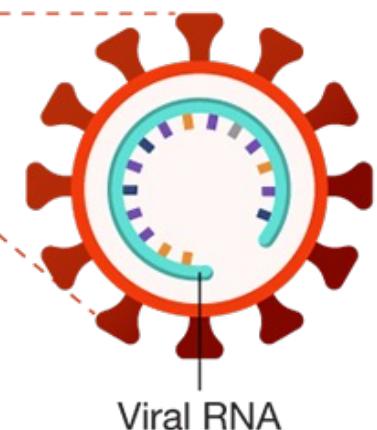
Negative result

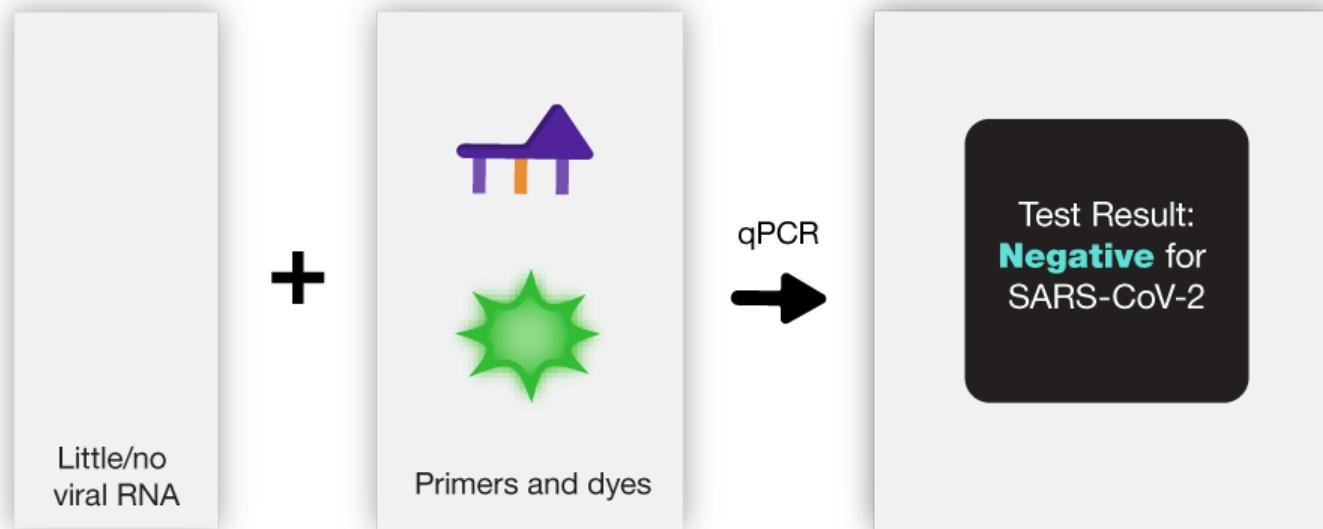
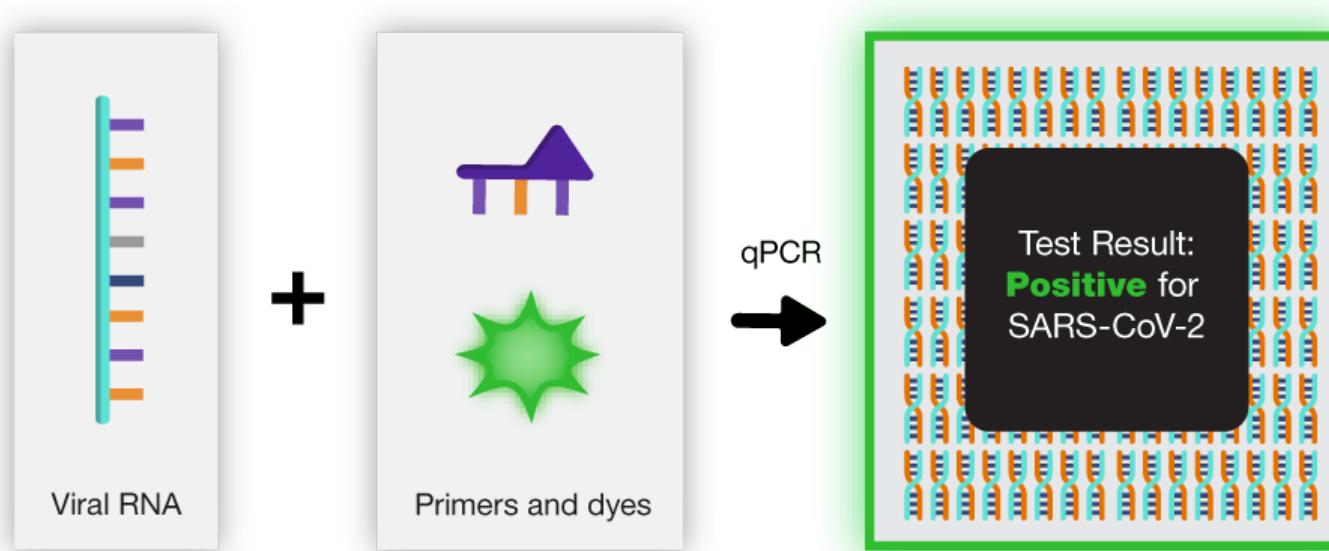
If there is no viral genetic material in the sample, amplification will not occur and no fluorescent markers will be detected.

Sample collection



SARS-CoV-2 virus





La protéine virale Spike est non-soi (not-self) → déclenchement d'une réponse immunitaire

