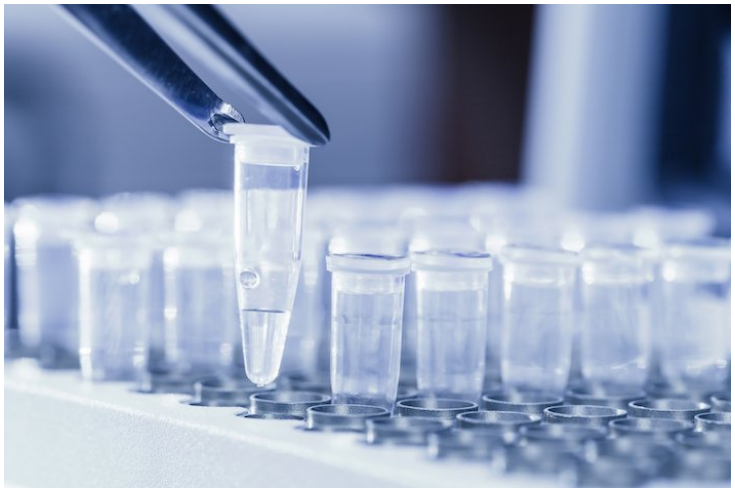
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IIT Delhi develops RT-PCR-based assay for identification of Omicron

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It will be possible to test for the presence of the Omicron variant within 90 minutes



Researchers at the Indian Institute of Technology (IIT) Delhi's Kusuma School of Biological Sciences have developed an RT-PCR based assay for the specific detection of the Omicron (B.1.1.529.1) variant of SARS-CoV-2.

The assay is based on detecting specific mutations, which are present in the Omicron variant and absent in other currently circulating variants of SARS-CoV-2. Primer sets targeting these unique mutations in the S gene were designed for the specific amplification of either the Omicron variant or other currently circulating variants of SARS-CoV-2 and tested using real-time PCR.

Using synthetic DNA fragments, the assays were optimised to distinguish the wild-type from the Omicron variant in a dynamic range from 10 million to <100 copies /reaction.

Currently, the identification or screening for omicron is done worldwide using next-generation sequencing-based methods, which require over 3 days. By using this RT-PCR based assay, it will be possible to test for the presence of the Omicron variant within 90 minutes.

This can be used as a rapid screening assay for the identification and isolation of individuals with Omicron variants. IIT Delhi has filed an Indian patent application for the same and is in the process of initiating talks with potential industry partners.