DRDO's DIPAS develops COVID-19 antibody detection kit

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Defence Institute of Physiology and Allied Sciences (DIPAS), a laboratory of Defence Research and Development Organisation (DRDO), has developed an antibody detection-based kit 'DIPCOVAN', the DIPAS-VDx COVID-19 IgG Antibody Microwell ELISA for sero-surveillance.

The DIPCOVAN kit can detect both spikes as well as nucleocapsid (S&N) proteins of the SARS-CoV-2 virus with a high sensitivity of 97 per cent and specificity of 99 per cent.

The kit has been developed in association with Vanguard Diagnostics Pvt Ltd, a development and manufacturing diagnostics company based in New Delhi.

The DIPCOVAN kit was developed indigenously by the scientists, followed by extensive validation on more than 1,000 patient samples at various COVID designated hospitals in Delhi. Three batches of the product were validated during the last year. The antibody detection kit is approved by the Indian Council of Medical Research (ICMR) in April 2021.

The product received regulatory approval from the Drugs Controller General of India (DCGI), Central Drugs Standard Control Organisation (CDSCO), Ministry of Health and Family Welfare, to manufacture for sale and distribution.

DIPCOVAN is intended for the qualitative detection of IgG antibodies in human serum or plasma, targeting SARS-CoV-2 related antigens. It offers a significantly faster turn-around time as it requires just 75 minutes to conduct the test without any cross-reactivity with other diseases. The kit has a shelf life of 18 months.

Industry partner Vanguard Diagnostics will commercially launch the product during the first week of June 2021. Readily available stock at the time of launch will be 100 kits (approx. 10,000 tests) with a production capacity of 500 kits/month after the launch. It is expected to be available at about Rs 75 per test.