

Dengsure1-4™: Platform Technology for Detection of Dengue

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Dengsure 1-4, is a Biotechnology Industry Research Assistance Council (BIRAC), supported Innovation for rapid and efficient detection of Dengue. The innovation developed by SLS Cell Cure Technologies Pvt Ltd. is a nucleic acid amplification test (NAAT)-based point-of-care panel that simultaneously evaluates four distinct species of Dengue virus. Detection can be completed in less than one hour (compared to the current norm of 48 hours).



Innovativeness of the device lies in the fact that the rapid diagnostic kits use only one antigen, hence, it is able to detect only NS1 antigen. The severe forms of dengue are caused by serotype 2 and 3. The LAMP based assay provides results for all antigens. The test is affordable, and it can detect as many as 10 copies. The kit enhances the specificity immensely due to use of six sets of primers. Furthermore, the test can be taken anywhere and therefore, it is more easily accessible compared to the high-end tests which require high end instruments in hospital setups.

Dengue is undoubtedly one of the biggest health concerns in India. Data from the National Vector Borne Disease Control Programme (NVBDCP) reveals that over one lakh people were diagnosed and an estimated 172 died from dengue in 2018. The innovation is priced at INR 1600/ (400 per test/antigen) and more than 300 tests have been sold by now.