

Company Name: Eiken Chemical Co., Ltd.
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Securities code: 4549 (TSE 1st Section)

Development of the next-generation compact fully automated genetic testing device and multi-item testing chip, using the LAMP method.

Eiken Chemical Co., Ltd. (Head office in Taito-ku, Tokyo) has developed the next-generation compact fully automated genetic testing device and multi-item testing chip, using the Eiken's original nucleic acid amplification method (the LAMP method). We will continue making every effort toward their early commercialization.

In recent years, there has been a high demand for early and accurate diagnosis in patient examination. In response to these medical needs, We have consistently promoted the development of a compact fully automated genetic testing device and a multi-item testing chip which can be installed in laboratories and treatment rooms in hospitals, and do not require advanced technology.

This device operates fully automatically throughout all steps, from sample pretreatment (nucleic acids extraction and purification) to amplification and detection. In conventional devices, while using separate devices, extracting and purifying nucleic acids, as well as amplifying and detecting processes took in total more than 2 hours. We have successfully managed to reduce the operating time to no more than 30 minutes thanks to the development of an original protocol which utilizes the characteristics of LAMP method.

In addition, this newly developed testing chip consists of several reaction wells that include amplifying reagents (primers, enzymes etc.) necessary for the LAMP method. By installing and utilizing this brand-new genetic testing device, users will enable to simultaneously detect genes of multiple items including the internal control. Furthermore, using a closed structure makes it extremely strong against contamination. Moreover, by pursuing a simple plastic structure, we reduced costs making it ready for mass production.

While aiming at early commercial applications, we will conduct clinical trials in order to enable simultaneous detection of multiple causative microorganisms for respiratory infectious diseases. We are committed to further developing testing chips for various types of infections, companion diagnostics, and related to different types of cancer.

We will continue to introduce these genetic testing device and multi-item testing chip widely throughout both domestic and overseas markets of genetic testing. This way, we hope to make greater contributions to the prevention, early diagnosis and treatment of disease.

Contact details

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