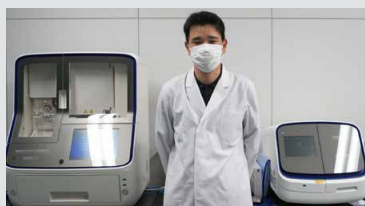


Sanger sequencing and fragment analysis

How the SeqStudio 24 Flex Genetic Analyzer helped a biopharmaceutical company increase efficiency

Kei Haga completed his master's research program in biological science at the NARA Institute of Science and Technology in Ikoma, Japan. He currently works at Carna Biosciences, a company that develops and manufactures protein kinases that are used for the research and development of new drugs.



Kei Haga
Production and Manufacturing
Carna Biosciences

Thermo Fisher Scientific: Tell us about Carna Biosciences.

Kei Haga: Newly discovered protein kinase mutations that cause drug resistance are being reported in the field of kinase development. By proactively identifying the sequence and effect of these mutations, Carna Biosciences offers products and services to meet the needs of customers in the protein kinase market. To this end, the Applied Biosystems™ SeqStudio™ 24 Flex Genetic Analyzer is used to drive more efficient development of protein kinases.

Thermo Fisher: What intrigued you to consider adopting the SeqStudio 24 Flex Genetic Analyzer?

Haga: Before adopting the SeqStudio 24 Flex Genetic Analyzer, we used the Applied Biosystems™ SeqStudio™ Genetic Analyzer. Although the SeqStudio Genetic Analyzer was simple to use and consumables were quite easy to replace, analysis using the instrument was time-consuming because it has only four capillaries. To reduce lead time for delivery of customer protein kinases and to accelerate the product development process, we decided to adopt the SeqStudio 24 Flex Genetic Analyzer, which has more capillaries.

Thermo Fisher: How are you using your SeqStudio 24 Flex Genetic Analyzer?

Haga: The most common area in which the instrument is used is to verify cloned kinase gene sequences to identify any mutations at the target location. We perform analyses once a week. We analyze customers' products and products we are developing ourselves at the same time. The SeqStudio 24 Flex Genetic Analyzer's sample capacity allows us to analyze a large number of samples at once.

Thermo Fisher: What are your favorite features of the SeqStudio 24 Flex Genetic Analyzer?

Haga: I had experience with the Applied Biosystems™ 3500xL Genetic Analyzer at my previous job. It was beneficial that the analysis conditions and the use of consumables on the new instrument are the same as the 3500xL Genetic Analyzer.

In addition, I like sample reprioritization and the ability to add a new plate during a run, which is not an option with the 3500xL Genetic Analyzer. The time required for sequencing has been greatly reduced, allowing time to be spent on the postcloning process, such as cell culture optimization or review of conditions for protein purification. I believe this helps improve the quality of our protein products.

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