

synopsis

Biomedical Technology Newsletter

Summer 2008

Gen-Probe utilizes SANYO MDF-C2156VANC in cancer kit production and for West Nile virus cures

Gen-Probe Inc. is a global biotech leader in developing, manufacturing and marketing of rapid, accurate and cost-effective nucleic acid tests (NATs) used primarily to diagnose human diseases and screen donated human blood. NATs utilize biotechnological developments to detect diseases faster and with greater accuracy than previous testing methods. Gen-Probe received the National Medal of Technology, the United States' highest honor for innovative blood-testing technologies.

Gen-Probe selected SANYO -150°C mechanical cryogenic freezers to replace traditional cryogenic liquid nitrogen freezing systems for cell line and biological storage. Cryogenic freezers achieve stable long-term preservation of cells and tissues and are ideal for ultra low storage in laboratories and the long-term preservation of blood, specimens and components. "When we were looking at storage options, SANYO was an industry leader in alternatives to traditional liquid nitrogen freezing. Mechanical cryogenic storage is economical in saving gas costs, compact, and safer in regards to the many regulations on holding gases," said Liz Apodaca, Manufacturing Manager, "All of our researchers have been extremely happy with the product. We can treat it like any other freezer and do not need people constantly running in and out to regulate and fill the gas. When we were looking to purchase our second unit, we were so satisfied with SANYO we did not even consider other products."



Gen-Probe, Leading Biotech Facility in San Diego, CA

Mechanical freezer preservation provides users with many distinct advantages: uniform cryogenic storage temperatures, no worries about sample contamination, no liquid supply problems, no danger of sudden liquid eruptions, easy maintenance, and low operational and running costs. Incidentally, there is a greater chance of mycoplasma and organism contamination in liquid nitrogen preservation. In addition, the new SANYO V.I.P.TM insulated vacuum cabinet construction of the MDF-C2156VANC reduces wall thickness, while achieving up to 25% more storage capacity and 50% higher energy efficiency than a conventionally insulated freezer (smaller footprint). This unique design prevents the insulated layers from distortion and cracking that might occur due to temperature differences between the inside and outside air. The V.I.P.TM technology creates the most efficient insulation material available today. SANYO is a leading manufacturer of mechanical cryogenic temperature freezers that develops and designs its own components, from compressors in the refrigeration units to the micro-chips in the display. SANYO is proud to be a partner with such a pioneering and cutting edge research and development company.



The MDF-C2156VANC is for the US market only.

MDF-C2156VANC

Temperature range	-125 to -150°C
Capacity	231L (8.2 cu.ft)
Interior dimensions (W x D x H)	760 x 495 x 615 mm (29.9 x 19.5 x 24.2 inch)
Exterior dimensions (W x D x H)	1730 x 765 x 1010 mm (68.1 x 30.1 x 39.8 inch)

10 years of Innovation, Creation and Perfection The "V.I.P. Series" Freezers

1997	-86°C	Upright freezer	MDF-U70V
1999	-86°C	Upright freezer	MDF-U50V/U71V
2002	-86°C	Upright freezer	MDF-U32V
2003	-86°C	Upright freezer	MDF-U52V/U72V
2006	-86°C	Upright freezer	MDF-U53V/U73V
	-80°C	Chest freezer	MDF-C8V
	-150°C	Chest freezer	MDF-C2156VAN
2008	-86°C	Upright freezer	MDF-U33V



The VIP System achieves superior storage space efficiency and equipment space conservation by combining VIP (Vacuum Insulation Panels) and hard foamed polyurethane to reduce insulation thickness to 1/2 and increase volume efficiency by 25%.

Netherlands Animal Research Centre switches from using Liquid Nitrogen to -150°C freezer

The Animal Sciences Group (ASG) of Wageningen UR is an internationally renowned organisation in the field of animal production and animal health. This organisation also develops and produces vaccines and sensitines (specific diagnostics). Core activities are scientific and practice-based research, academic education and generating (animal) production systems and innovations.



ASG Headquarters

Some 650 highly qualified staff members instruct young academics and undertake research for a large group of clients. The research varies from specialist to multi-disciplinary, while the focus always remains on the concepts of quality and independence for both education and research.

Extensive facilities for research and production

The Animal Sciences Group's facilities are extensive, used for both research and production. In addition, practical research centres at various locations in the Netherlands are used as application-oriented locations for research into cattle, poultry and pig farming.

In Wageningen, the Animal Sciences Group has access to the largest fresh-water fish-farming facilities in Europe. At the main

site in Lelystad, there are operating facilities, isolation units (for SPF and pathogen-free animals) and high-containment facilities (including BSL 3 recognition) where research is carried out into extremely infectious animal diseases. The Animal Sciences Group also has livestock houses for metabolic and climate research as well as extensive laboratories. The Animal Sciences Group is part of Wageningen UR and has an annual turnover of about 88 million euros.

The Animal Science Group recently purchased a SANYO MDF-C2156VAN for one of its laboratories. This monoclonal laboratory of the Central Veterinarian Institution produces and purifies products such as monoclonal antibodies which require hybridoma cell lines to be produced and used. As hybridoma cell lines have to be stored at ultra low temperatures, ASG has much experience with storage using liquid nitrogen, and they are familiar and satisfied working with it.

Reasons for choosing a MDF-C2156VAN were twofold: ASG was convinced that the MDF-C2156VAN would optimally preserve cell lines and it was simply more convenient to use a regular freezer instead of a liquid nitrogen system. No extra pipes or precautionary measures were required.

The MDF-C2156VAN has been installed in a room next to the lab, adding to convenience for use.



Freezer room

SANYO Biomedical, longterm supplier to Bio Farma of Indonesia.

SANYO Biomedical recently made delivery of 15 SANYO ULT Freezers to Bio Farma Indonesia of Bandung, West Java, Indonesia. These Model MDF-793AT freezers are capable of -86°C. This delivery enhanced the SANYO brand image as Bio Farma Indonesia is one of the few WHO-qualified vaccine manufacturers in the world.

The WHO enforces immunization as a global program in the Expanded Program on Immunization (EPI) which is inclusive of a special program to eradicate polio and to eliminate measles and tetanus.

In Indonesia, immunization is a national program, with a goal of vaccinating 5 million babies born every year, 27.6 million school children, and 15 million childbearing age women. BioFarma is able to fulfill part of the world's need for vaccines, in addition to the localized vaccine demand for health programs in Indonesia. These vaccines are therefore used locally for the national immunization program, as well as internationally where the vaccines have been supplied to approximately 100 countries.

In 2000, Bio Farma received WHO approval for manufacturing bacterial vaccines for diphtheria, whooping cough (pertussis) and tetanus, as well as a second approval for the production of viral vaccines.

In August 2001, the company's Tetanus Toxoid (TT) Vaccine in Uniject packs also received WHO approval, and allowed PT Bio Farma to provide TT vaccines for needy countries.

In August 2006, Bio Farma received ISO 14001:2004, OHSAS 18001:1999 certification as well as renewed certification for ISO 9001:2000. Bio Farma was also appointed by WHO as a training center for the Global Training Network program implementation. The training itself is in its fifth year and receives financial support from JICA, as well as collaboration with JPRI Japan, NVI Netherlands, and NIBSC United Kingdom for IPV (Inactivated Polio Vaccine), as a WHO program for 2008.

According from Mr. Cecep Dadang from the Polio Production Division, Bio Farma has been using SANYO ULT Freezer for over 15 years, especially models featuring microprocessor control and environmental friendliness. Bio Farma can be said to be extremely satisfied with the performance of the SANYO ULT Freezers with precision temperature control and reliable performance.



Bio Farma, Bandung, West Java, Indonesia



From left to right, Mr. Ir. Jeffri A.S. (SANYO Indonesia, PT. SIGMA BIMED), Mr. Cecep Dadang (Bio Farma Kasi Polio), Mr. Bambang S (Manager Bdg)