

Separation of virus using new rotor and 1.5-ml micro tubes

CP-WX series preparative ultracentrifuge and P50A3 angle rotor

Ultracentrifuges that are operable at 100,000 x g or higher RCF are used for separation of nano-order microparticles. For pelleting particles, conical tubes are helpful. Among our conventional rotors, the S55A2 angle rotor is operable at 201,000 x g with the 1.5-ml micro tubes (conical bottom). This time, our new P50A3 angle rotor is developed for use with ultracentrifuges. This rotor is operable at 250,000 x g with twenty-four 1.5-ml micro tubes at a time. For more efficient pelleting, the tube cavity angle of the P50A3 angle rotor is similar to that of a swing rotor in addition to the conically shaped bottom. The P50A3 angle rotor is suitable for separation of many virus samples.

Example of application

Separation of rice dwarf virus (RDV)

Conditions for centrifugation

Centrifuge: CP100WX preparative ultracentrifuge

Rotor: P50A3 angle rotor (24 tubes)

Tube: Exclusive 1.5-ml micro tube

Speed: 50,000 rpm

Maximum RCF: 250,000 x g

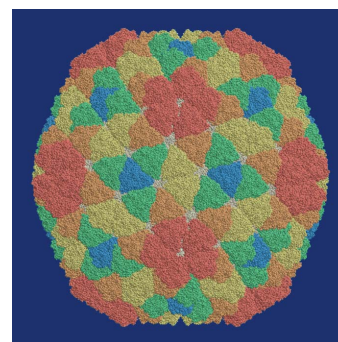
Time: 12 minutes

Temperature: 4 °C

ACCEL/DECEL mode: "9"/"7"

Rice dwarf virus (RDV)

Rice dwarf virus (RDV), which is one of the major pathogenic viruses causing rice diseases, is transmitted by *Nephotettix cincticeps*. If rice plant is infected with RDV, it shows maculae and stops growing. Thus rice harvesting becomes poor significantly. RDV belongs to the family of Reoviridae. It is a particle approximately 70 nm in diameter and 70,000,000 Dalton in molecular weight. The genome of RDV is composed of double-stranded RNAs.





P50AT3 angle rotor



himac 1.5-ml micro tubes

Item	P50A3 angle rotor	S55A2 angle rotor
Applicable centrifuge	CP-GX series preparative ultracentrifuge	CS-GXII series micro ultracentrifuge
Maximum speed	50,000 rpm	55,000 rpm
Maximum RCF	250,000 x g	201,000 xg
Number of tubes	24	12
Tube cavity angle	50 degrees	45 degrees
Actual tube capacity	1.3 ml	1.3 ml
Material of rotor	Aluminum alloy	Aluminum alloy

For more information, visit our website at:

<http://www.hitachi-koki.com/himac.contact/index.htm>

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