

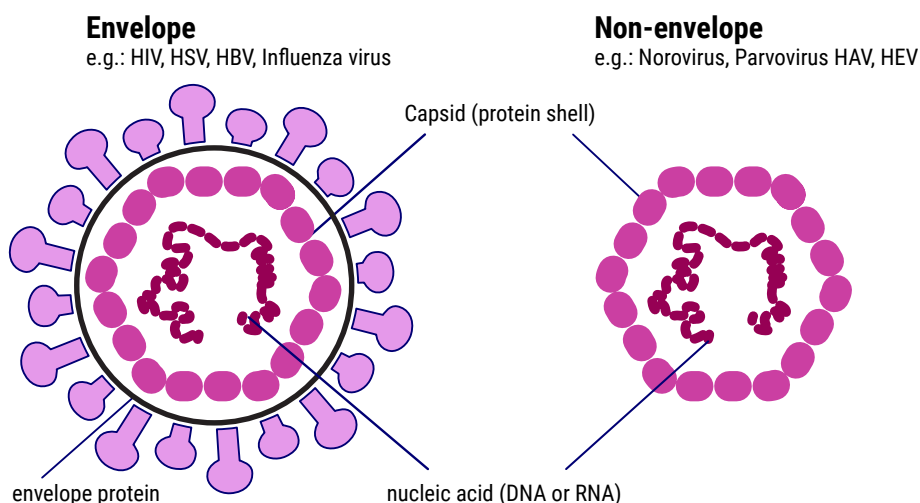


**Reduced Fermented Peptide Probiotics™ (RFP Pro-V™)** is a combination of lactic acid bacteria fermentation extract, plum extract, hydrogen, and deep sea water. It is made by a unique process of fermentation involving hydrogen, producing more than 100 billion lactic acid bacteria per gram, equivalent to 100 yogurt.

RFP Pro-V™ contains lactobacillus with good bacteria growth effect and antibacterial peptides, fostering many beneficial effects including anti-glycation and anti-fungal. It is also a powerful anti-viral agent, eliminating bad bacteria throughout the whole organism.

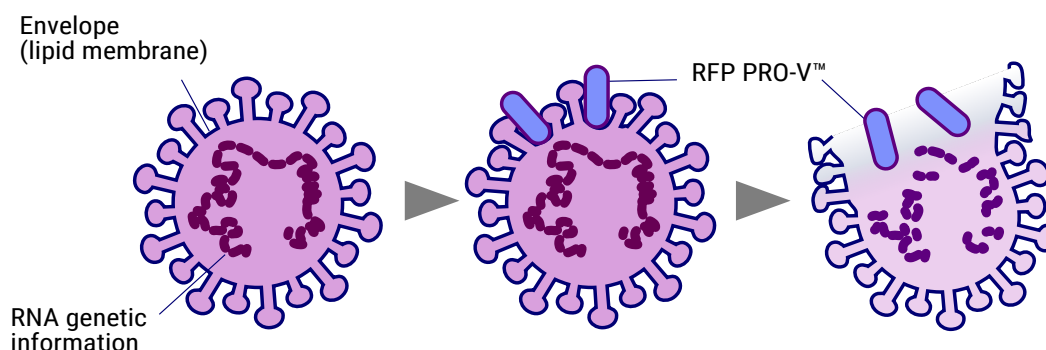
RFP Pro-V™ laboratory tests have shown the best possible results for both enveloped and non-enveloped viruses (>99.999% – below detection limit) indicating a reduction of the number of viruses in the body. This suggests that it would be effective against almost all viruses.

**Viruses  
can be classified  
into two types.**



## Coronavirus annihilation

Coronaviruses, influenza, and human immunodeficiency virus (HIV virus) that have become well known in recent years are made up of a thin membrane called an "envelope". If this thin film is broken, the virus is instantly killed.



Differently than normal lactic acid bacteria, **RFP Pro-V™** have a unique, needle-like action on the virus' thin membrane (envelope), so it is destroyed on contact. Laboratory results demonstrate that 99.999% of mammal cells were protected from the virus attack.

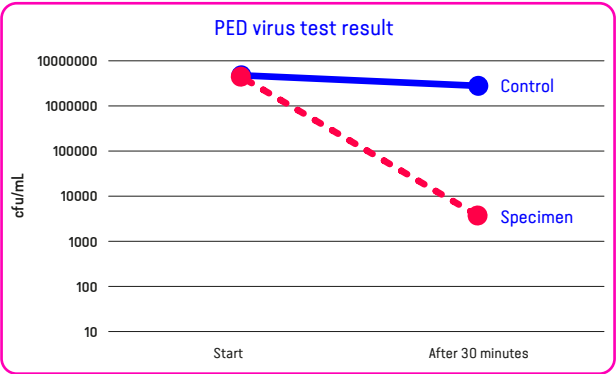
# Coronavirus test results (envelope virus)

Porcine epidemic diarrhea virus (PEDV) coronavirus was chosen for these tests due to the striking similarities between its structure and function and those of N-COV-SARS-CoV-2 (2019-nCoV).

Coronavirus (PEDV) titer results

Time (minutes)	Control	Area	Reduction (%)
0	$10^{6.7}$	-	-
30	$10^{6.5}$	$<10^{3.5}$	99.9 <sup>1)</sup>

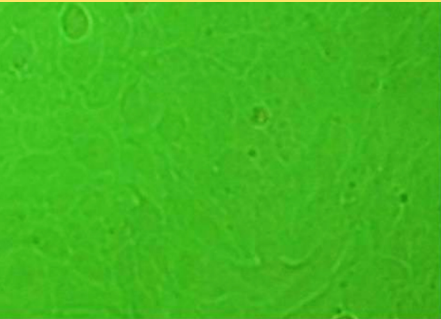
<sup>1)</sup> Percentage reduction compared to the control at 30 minutes after inoculation. Unit: TCID<sub>50</sub>/mL



RFP Pro-V™ achieved 99.9% reduction of PEDV (i.e. undetected). The research institute mixed healthy mammal cells and active virus. The result (below-left) shows the cytopathic effect (CPE)\* testing positive. When cells and virus were mixed with RFP Pro-V™, the result (below-right) shows the cells remaining “negative/no infection” because the RFP Pro-V™ killed 99.999%, eliminating the infection.

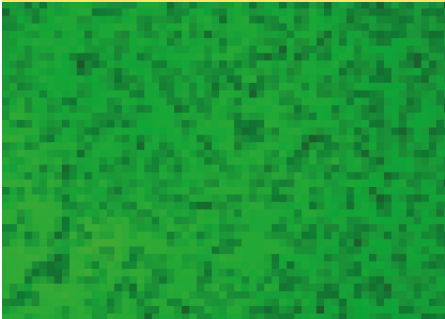
\* Cytopathic effect or cytopathogenic effect (abbreviated CPE) refers to structural changes in host cells that are caused by viral invasion. The infecting virus causes lysis of the host cell or when the cell dies without lysis due to an inability to reproduce. Both of these effects occur due to CPEs. If a virus causes these morphological changes in the host cell, it is said to be cytopathogenic.

Start - normal cells




Normal cells

Positive - Infected cells



Virus-positive cells with CPE (cellular mutation)

RFP Pro-V™ protected the cells



Cells protected by Reduced Fermenting Lactic Acid Bacteria™ (normal) are virus negative

Tested by the Food and Environmental Hygiene Research Institute, Inc., Japan

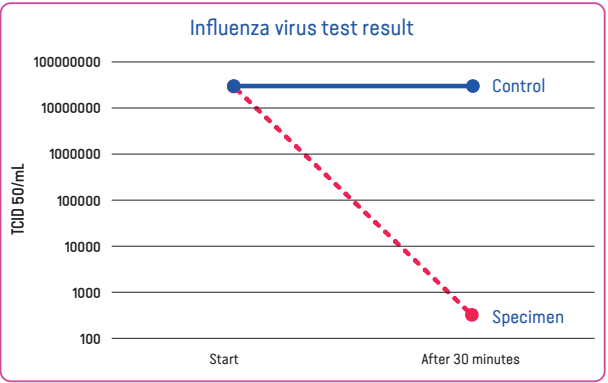
# Influenza virus test results (envelope virus)

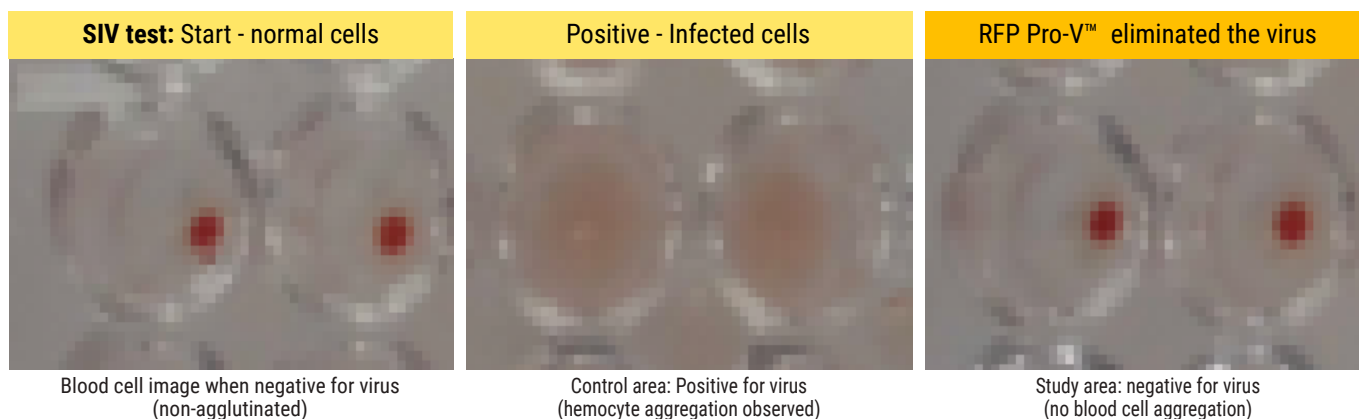
Moreover, RFP Pro-V™ annihilated Influenza virus (SIV), achieving the same undetectable deactivation. Therefore, RFP Pro-V™ is presumed to work against Influenza viruses that we face every year.

Influenza virus (SIV) titer results

Time (minutes)	Control	Area	Reduction (%)
0	$10^{7.5}$	-	-
30	$10^{7.5}$	$<10^{2.5}$	99.999 <sup>1)</sup>

<sup>1)</sup> Percentage reduction compared to the control at 30 minutes after inoculation. Unit: TCID<sub>50</sub>/mL





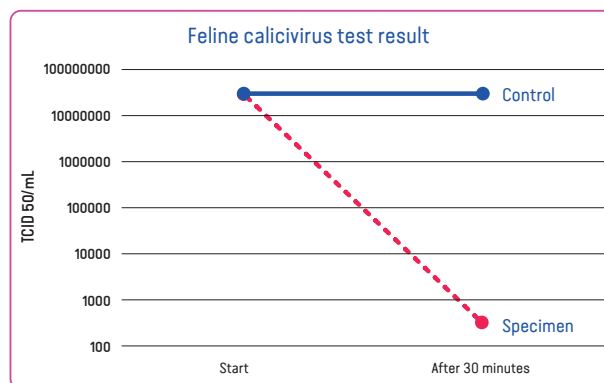
## Feline calicivirus test results (non-envelope virus)

Feline caliciviruses (FCV) are mainly utilized in laboratory tests as a replacement for norovirus, which are the most representative of non envelope viruses. RFP Pro-V™ is more than 99.999% effective against these viruses.

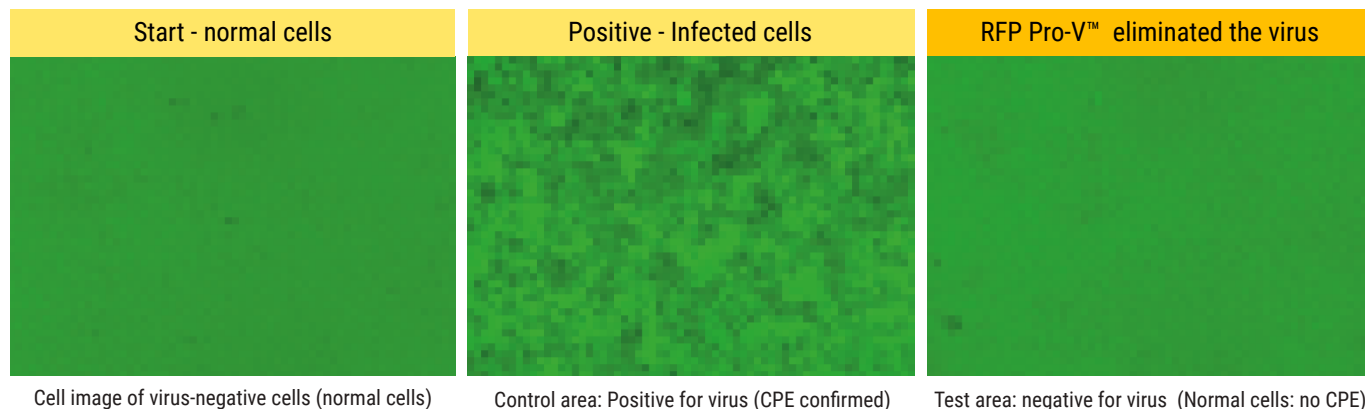
Feline calicivirus (FCV) titer results

Time (minutes)	Control	Area	Reduction (%)
0	10 <sup>7.5</sup>	-	-
30	10 <sup>7.5</sup>	<10 <sup>2.5</sup>	99.999 <sup>1)</sup>

<sup>1)</sup> Percentage reduction compared to the control at 30 minutes after inoculation. Unit: TCID<sub>50</sub>/mL



The research institute mixed healthy mammal cells and active virus. The result (below-left) shows the infected cells, testing positive. When cells and virus were mixed with RFP Pro-V™, the result (below-right) shows the cells remaining “normal/no infection” because the RFP Pro-V™ killed 99.999% of the feline calicivirus, eliminated the infection.



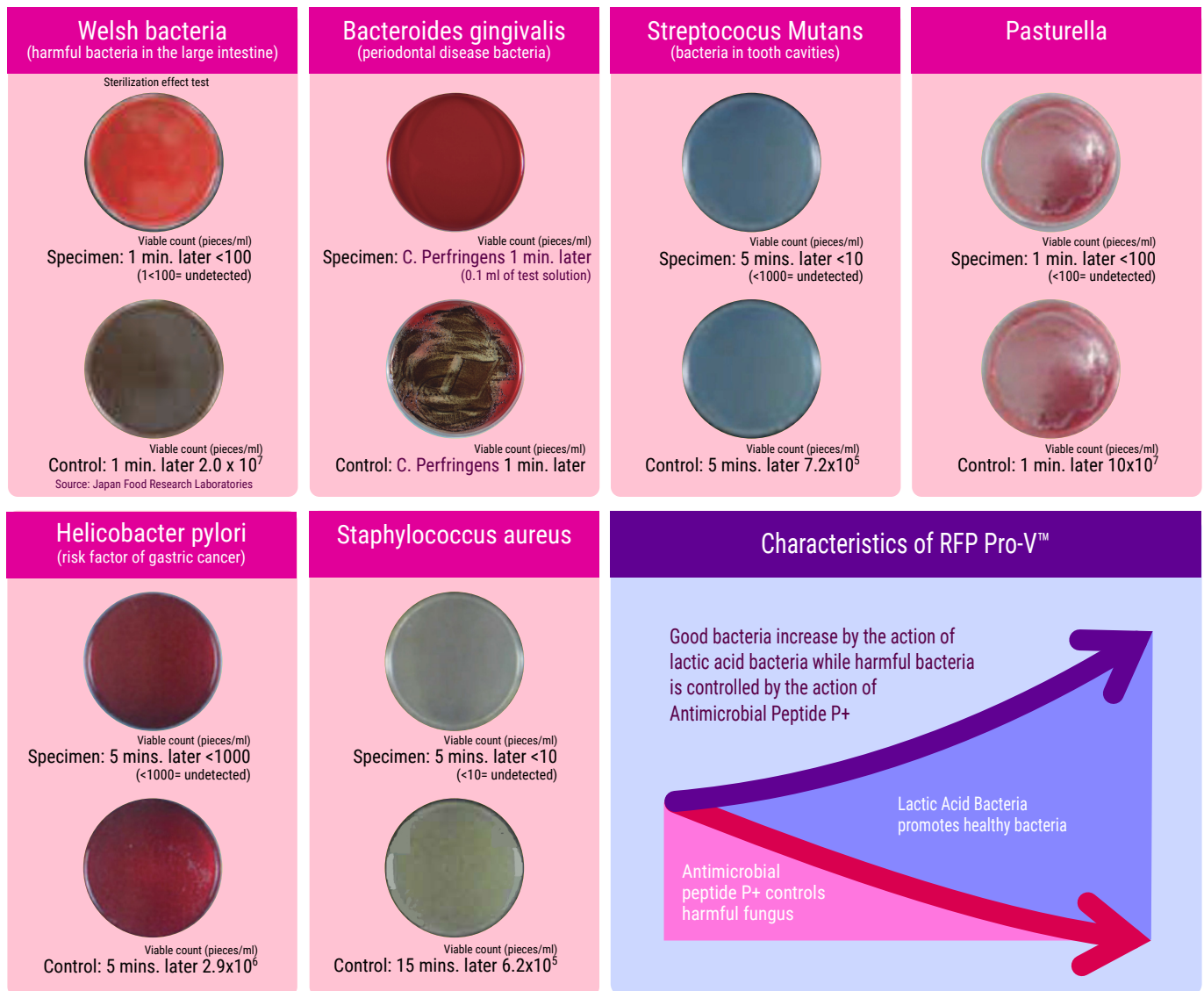
Tested by the Food and Environmental Hygiene Research Institute, Inc., Japan

# How RFP Pro-V™ is produced



## Harmful bacteria cleanse (oral and gastrointestinal care)

RFP Pro-V™ shows anti-bacterial effects against bad bacteria including E. Coli (infection causing bacteria), H. Pylori (a risk factor for gastric cancer), and S. Mutans (tooth decay bacteria).



All the above **test results** clearly indicated that **no viruses or harmful bacteria were detected** after **RFP Pro-V** had effect.

Tested by the Food and Environmental Hygiene Research Institute, Inc., Japan