



# GERMICIDAL EFFICACY VIROLOGY TESTING

Intertek provides the manufacturers of antimicrobial products with the highest quality efficacy testing to provide data to support their germicidal product claims.



## Virology Testing

### Evaluating the reduction of pathogens using relevant viruses of human and animal origins.

With the completion of a virus test laboratory and an experienced Virologist on staff, Intertek has advanced to the next level of microbiological and verification testing. Now offering a more precise determination of reduction and aerosolization of biosafety level (BSL) 1 & 2 organisms, Intertek can assist manufactures with the test data they need to take their product to market.

## Viruses and Efficacy Testing

Intertek utilizes a vast selection of organisms for efficacy testing including enveloped and non-enveloped, RNA and DNA viruses, ranging in sizes and bio-safety levels to help manufactures support their marketing claims.

The specific choice of virus is dependent on many complex factors, and often is related to the germicidal mechanism of action. There are some viruses which may be more resistant than others and may create a higher level of challenge for the test system.

## Global Sanitization Claims Requirements

Manufacturers are required to provide test data to support any microbial efficacy (e.g., kills or removes 99.9% of germs) claims.

Regulations in various countries often specify the types of organisms that must be tested to make these claims based on the products' end-use.

Intertek can assist manufacturers with claims guidance, as well as market entry, and understanding regional regulations.

Organism	DNA or RNA Classification	Enveloped or Non-enveloped	Bio-Safety Level	Size (Diameter)	Testing Considerations
Bacteriophage PHI6	RNA	Enveloped	BSL-1	80 – 100 nm	Various Efficacy Claims
Bacteriophage Phi X174	DNA	Non-enveloped	BSL-1	25 nm	Various Efficacy Claims
Bacteriophage MS-2	RNA	Non-enveloped	BSL-1	23 – 28 nm	Water Sanitation Standards, NSF 42, NSF 53
Human coronavirus 229E	RNA	Enveloped	BSL-2	80 – 150 nm	Various Efficacy Claims
Adenovirus	DNA	Non-enveloped	BSL-2	90 – 100 nm	Various Efficacy Claims
Parvovirus	DNA	Non-enveloped	BSL-2	18 – 26 nm	Various Efficacy Claims
Influenza virus (H3N2 & H1N1)	RNA	Enveloped	BSL-2	80 – 120 nm	Various Efficacy Claims
Herpes simplex virus type-1 (and other mammalian herpesviruses)	DNA	Enveloped	BSL-2	155-240 nm	Various Efficacy Claims
Human astrovirus	RNA	Non-enveloped	BSL-2	28 – 30 nm	Various Efficacy Claims

**Note: BSL-1 pathogens are less harmful, and less complex to work with.**

**Intertek is willing to acquire viruses (BSL-1/BSL-2) not listed in the table to meet customer's testing needs.**

### FOR MORE INFORMATION

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