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Determination of antiviral activity using bacteriophage

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1. Test conditions

- a) Reference to this test method: ISO 18071:2016 and ISO 27447:2019 (glass adhesion method)
- b) Characterization of the treated and non-treated specimens:

· Type: Wall cloth

• Size : $50 \text{ mm} \times 50 \text{ mm}$ (Square)

•Treated specimen name: AB-1

· Non-treated specimen name: Non-treated cloth

c) n=1

d) Disinfection of specimen: No disinfection

e) Type of test strains number:

• Bacteriophage strain: Bacteriophage Qβ (NBRC20012)

· Host bacteria strain: Escherichia coli (NBRC106373)

• Bacteriophage strain: Bacteriophage φ6 (NBRC105899)

• Host bacteria strain: Pseudomonas syringae (NBRC14084)

f) Reaction conditions:

•Temperature: room temp.

·Reaction time: 4 h

g) Type and size of cover glass: TEMPAX glass, 60 mm × 60 mm

h) Test date: July 1st, 2020

2. Result

Bacteriophage Qβ	Virus Titer (pfu/sample)*1		V: Antiviral
	0 h	Room Temp. 4 h	activity*3
Non-treated cloth	1.7E+06	1.1E+06	-
AB-1	-	<2.0E+03*2	2.7

Titer of bacteriophage in test suspension :5.6×10⁶ pfu/ml Quantity of inoculated test suspension : 0.3 ml/specimen

Antiviral activity: [V=log(B)-log(C)]

B: number of virus titer of non-treated specimen,

C: number of virus titer of treated specimen

Remark: This report is the translated version based on KISTEC02-183C01 in English.

^{*1 &}quot;E+06" represents "×10⁶".

^{*2} Detection limit was 2.0E+03 pfu/sample, because bacteriophage $Q\beta$ revoverd solution from sample inhibited the growth of host bacteria.

^{*3} Reference value due to modified ISO test method