

ISO 18184:2025-03 (E)

Textiles - Determination of antiviral activity of textile products

Contents		Page
Foreword		v
Introduction		vi
1 Scope		1
2 Normative references		1
3 Terms and definitions		1
4 Principle		3
5 Example of virus and host cell		3
6 Warning		3
7 Apparatus		3
8 Sterilization of apparatus		6
9 Reagents and materials		6
10 Preparation		12
10.1 Restoration of host cell from cryopreservation.....		12
10.2 Subculture of host cell.....		13
10.3 Cell culture for the infectious virus titre assay.....		14
10.4 Preparation for test virus.....		14
10.4.1 General.....		14
10.4.2 Influenza virus.....		14
10.4.3 Feline calicivirus.....		15
10.4.4 Other viruses.....		16
10.4.5 Infectivity titre of the test viruses.....		16
10.5 Preparation of test specimens.....		17
10.5.1 Control fabric.....		17
10.5.2 Preparation of test specimens.....		17
10.5.3 Sterilization of control test specimens and antiviral test specimens.....		17
10.6 Control test.....		18
10.6.1 General.....		18
10.6.2 Verification of cytotoxicity by cell sensitivity to virus and the inactivation of antiviral activity.....		18
11 Test procedure		18
11.1 Preparation of control test specimens and antiviral test specimens.....		18
11.2 Deposit of virus to the control test specimens and antiviral test specimens.....		19
11.3 Contacting time.....		19
11.4 Wash-out of virus immediately after deposit.....		19
11.5 Wash-out of virus after contacting time.....		19
12 Preparation of the series of the dilution for the virus suspension		19
13 Determination of the infectious titre		20
13.1 Plaque assay.....		20
13.2 TCID ₅₀ method.....		20
13.3 Testing method using specific pathogen free (SPF) embryonated hen's eggs.....		20
14 Calculation of infectivity titre		20
14.1 Plaque assay.....		20
14.2 TCID ₅₀ method.....		20
14.2.1 General.....		20

14.2.2	Behrens and Karber method.....	21
14.2.3	Example of calculation.....	21
14.3	Test result.....	23
14.3.1	Verification of this test.....	23
14.3.2	Calculation of antiviral activity value.....	23
15	Example of test results.....	23
16	Judgement of antiviral efficacy.....	24
17	Test report.....	24
Annex A	(informative) Virus strains and host cells.....	25
Annex B	(normative) Test method for SARS-CoV-2.....	26
Annex C	(normative) Infectivity titre test — Plaque assay.....	36
Annex D	(normative) Infectivity titre test: TCID₅₀ method — Test procedure.....	38
Annex E	(informative) Composition of media.....	39
Annex F	(informative) Additional examples of viruses and host cells.....	42
Annex G	(informative) Testing method using specific pathogen free (SPF) embryonated hen's eggs.....	43
Annex H	(informative) Antiviral efficacy — Antiviral performance of the products.....	48
Annex I	(informative) Interlaboratory test result (1).....	49
Annex J	(informative) Interlaboratory test result (2).....	51
Annex K	(informative) Interlaboratory test result (3).....	54
Bibliography	56