

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