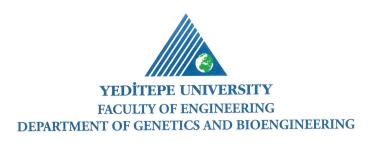


ANTIVIRAL ACTIVITY TEST REPORT

REPORT RECORD NUMBER AND DATE	097-VİR-2016-1 31.10.2016				
SAMPLE RECORD NUMBER	2016-197				
MANUFACTURER NAME AND ADRESS	GBL Gül Biyoloji Laboratuvarı San. Tic. Ltd. Şti. İMES Sanayi Sitesi C Blok 305 Sok. No:16 Esenşehir- Ümraniye/İstanbul				
THE LICENSE OWNER COMPANY AND ADRESS	GBL Gül Biyoloji Laboratuvarı San. Tic. Ltd. Şti. İMES Sanayi Sitesi C Blok 305 Sok. No:16 Esenşehir- Ümraniye/İstanbul				
TESTED PRODUCT NAME	Manochol EP-70				
ACTIVE SUBSTANCES OF THE PRODUCT	Ethyl Alcohol 45%; İsopropyl Alcohol 25%				
FORM OF PRODUCT FORMULATION	Liquid				
SAMPLE ARRIVAL DATE	02.09.2016				
TEST PURPOSE	Viral activity determination				
SAMPLE SENDING INSTITUTION, DATE AND NO	İstanbul Governorate Public Health Directorate				
PRODUCTION AND EXPIRATION DATE OF PRODUCT	26.08.2016 / 26.08.2018				
SAMPLE CHARGE/SERIAL NO	A2534				
TEST START AND END DATE	10.10.2016- 31.10.2016				
TESTED VIRUS AND STRAIN	Poliovirus Type 1, Chat strain				
TESTED VIRUS AND STRAIN PROPERTIES	Reference strain of ATCC coded VR-192				
TESTED DOSE	The highest non-cytotoxic concentration of the product was 1%, hence higher concentration than 1% was not tested in <i>in vitro</i> viral activity assays.				
CONTACT METHOD AND DURATION	Liquid mixture (inside the cell culture plates), 1 minutes and 60 minutes.				
TEST CONDITIONS	Clean Condition: BSA-containing medium (20 °C) Dirty Condition: BSA and sheep erythrocytes-containing medium (20 °C)				
TEST CELL CULTURE AND DILUTION BUFFER	HEp-2 cell culture (ATCC CCL-23) MEM, PBS, Hard water				
ANALYSIS METHOD	TS EN 14476 test method of Turkish Standards Institute (2014)				







		TEST RESU	LTS			
ACTIVITY EVALUATION METHOD	Serial dilutions of refer viral titer was calculat exerted visible cytopath	ted using Spea	rman-Karper n	nethod based	culated onto F on the virus	HEp-2 cells and dilution which
		Reference	Effect of MANOCHOL EP-70			
		virus	1 mir	nutes	60 minutes	
RESULTS * Logari ** Logari contact	Virus titer*	5.5	Clean Condition	Dirty Condition	Clean Condition	Dirty Condition
		Virus titer with the disinfectant **		1.5	1.5	1.5
	Reduction rate in	virus titer	4.0	4.0	4.0	4.0
	** Logarithmic TCID50 value of virus which was exposed to disinfectant at different contact time and conditions ** Contact time and conditions					
COMMENT	As tested conceragainst test cell culture toxicity, 1 % was used 100 % concentration or room temperature (20 time. According to the minimum 4 log virus ti The results of the test against Poliovirus type used at 100 % concentration.	e, the highest coll in the expering f MANOCHO °C) in all test of Antimicrobial ter reduction to the show that Me 1 at room tempers.	oncentration of nents. According LEP-70 provi- conditions (see Division US E be an acceptab	the disinfecta ag to the calcu- ided at least 4 result table) 1 EPA standards, ble virucidal ag EP-70 possess	nt which did alations based log reduction for 1 and 60 m, disinfectants gent.	not display a on test resultin virus titer ninutes contained has to provi

Binnur KIRATLI

Analyst

Prof. Fikrettin SAHIN Chair of Biocklad Laboratory



ANTIVIRAL ACTIVITY TEST REPORT

REPORT RECORD NUMBER AND DATE	097-VİR-2016-2 31.10.2016				
SAMPLE RECORD NUMBER	2016-197				
MANUFACTURER NAME AND ADRESS	GBL Gül Biyoloji Laboratuvarı San. Tic. Ltd. Şti. İMES Sanayi Sitesi C Blok 305 Sok. No:16 Esenşehir- Ümraniye/İstanbul				
THE LICENSE OWNER COMPANY AND ADRESS	GBL Gül Biyoloji Laboratuvarı San. Tic. Ltd. Şti. İMES Sanayi Sitesi C Blok 305 Sok. No:16 Esenşehir- Ümraniye/İstanbul				
TESTED PRODUCT NAME	Manochol EP-70				
ACTIVE SUBSTANCES OF THE PRODUCT	Ethyl Alcohol 45%; İsopropyl Alcohol 25%				
FORM OF PRODUCT FORMULATION	Liquid				
SAMPLE ARRIVAL DATE	02.09.2016				
TEST PURPOSE	Viral activity determination				
SAMPLE SENDING INSTITUTION, DATE AND NO	İstanbul Governorate Public Health Directorate				
PRODUCTION AND EXPIRATION DATE OF PRODUCT	26.08.2016 / 26.08.2018				
SAMPLE CHARGE/SERIAL NO	A2534				
TEST START AND END DATE	10.10.2016- 31.10.2016				
TESTED VIRUS AND STRAIN	Human adenovirus type 5, Adenoid 75 strain				
TESTED VIRUS AND STRAIN PROPERTIES	Reference strain of ATCC coded VR-5				
TESTED DOSE	The highest non-cytotoxic concentration of the product was 1%, hence higher concentration than 1% was not tested in <i>in vitro</i> viral activity assays.				
CONTACT METHOD AND DURATION	Liquid mixture (inside the cell culture plates), 1 minutes and 60 minutes.				
TEST CONDITIONS	Clean Condition: BSA-containing medium (20 °C) Dirty Condition: BSA and sheep erythrocytes-containing medium (20 °C)				
TEST CELL CULTURE AND DILUTION BUFFER	HEp-2 cell culture (ATCC CCL-23) MEM, PBS, Hard water				
ANALYSIS METHOD	TS EN 14476 test method of Turkish Standards Institute (2014)				

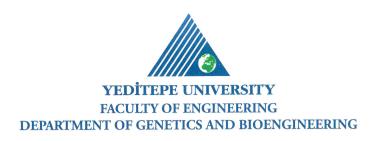






TEST RESULTS							
ACTIVITY EVALUATION METHOD	Serial dilutions of refe HEp-2 cells and viral dilution which exerted	titer was calcu	lated using Sp	earman-Karpe	r method base	inoculated onto ed on the virus	
		Reference	Effect of MANOCHOL EP-70				
		virus	1 mir	nutes	60 minutes		
	Virus titer*	5.0	Clean Condition	Dirty Condition	Clean Condition	Dirty Condition	
	Virus titer with the disinfectant **		1.0	1.0	1.0	1.0	
RESULTS	RESULTS Reduction rate i		4.0	4.0	4.0	4.0	
	 Logarithmic TCID50 value of virus per ml Logarithmic TCID50 value of virus which was exposed to disinfectant at different contact time and conditions Logarithmic TCID50 ratio of virus titer and virus titer with the disinfectant 						
COMMENT	As tested concentration MANOCHOL EP-70; 10 %, was found to exert cytotoxicity against test cell culture, the highest concentration of the disinfectant which did not display any toxicity, 1 % was used in the experiments. According to the calculations based on test results 100 % concentration of MANOCHOL EP-70 provided at least 4 log reduction in virus titer at room temperature (20 °C) in all test conditions (see result table) for 1 and 60 minutes contact time. According to the Antimicrobial Division US EPA standards, disinfectants has to provide minimum 4 log virus titer reduction to be an acceptable virucidal agent. The results of the test show that MANOCHOL EP-70 possesses 99.99% antiviral activity against Human adenovirus type 5 at room temperature (20 °C) for 1 and 60 minutes contact time when used at 100 % concentration.						

Binnur KIRATLI



ANTIVIRAL ACTIVITY TEST REPORT

REPORT RECORD NUMBER AND DATE	097-VİR-2016-3 31.10.2016				
SAMPLE RECORD NUMBER	2016-197				
MANUFACTURER NAME AND ADRESS	GBL Gül Biyoloji Laboratuvarı San. Tic. Ltd. Şti. İMES Sanayi Sitesi C Blok 305 Sok. No:16 Esenşehir- Ümraniye/İstanbul				
THE LICENSE OWNER COMPANY AND ADRESS	GBL Gül Biyoloji Laboratuvarı San. Tic. Ltd. Şti. İMES Sanayi Sitesi C Blok 305 Sok. No:16 Esenşehir- Ümraniye/İstanbul				
TESTED PRODUCT NAME	Manochol EP-70				
ACTIVE SUBSTANCES OF THE PRODUCT	Ethyl Alcohol 45% ; İsopropyl Alcohol 25 %				
FORM OF PRODUCT FORMULATION	Liquid				
SAMPLE ARRIVAL DATE	02.09.2016				
TEST PURPOSE	Viral activity determination				
SAMPLE SENDING INSTITUTION, DATE AND NO	İstanbul Governorate Public Health Directorate				
PRODUCTION AND EXPIRATION DATE OF PRODUCT	26.08.2016 / 26.08.2018				
SAMPLE CHARGE/SERIAL NO	A2534				
TEST START AND END DATE	10.10.2016- 31.10.2016				
TESTED VIRUS AND STRAIN	Murine Norovirus				
TESTED VIRUS AND STRAIN PROPERTIES	Reference strain of ATCC coded PTA-5935				
TESTED DOSE	The highest non-cytotoxic concentration of the product was 1%, hence higher concentration than 1% was not tested in <i>in vitro</i> viral activity assays.				
CONTACT METHOD AND DURATION	Liquid mixture (inside the cell culture plates), 1 minutes and 60 minutes.				
TEST CONDITIONS	Clean Condition: BSA-containing medium (20 °C) Dirty Condition: BSA and sheep erythrocytes-containing medium (20 °C)				
TEST CELL CULTURE AND DILUTION BUFFER	RAW cell culture (ATCC TIB-71) MEM, PBS, Hard water				
ANALYSIS METHOD	TS EN 14476 test method of Turkish Standards Institute (2014)				







		TEST RESU	ULTS				
ACTIVITY EVALUATION METHOD	Serial dilutions of refe cells and viral titer we which exerted visible	as calculated us	ing Spearman-	Karper method			
		Reference	Effect of MANOCHOL EP-70				
		virus	1 mir		60 minutes		
	Virus titer*	5.5	Clean Condition	Dirty Condition	Clean Condition	Dirty Condition	
	1 1	Virus titer with the disinfectant **		1.5	1.5	1.5	
RESULTS	Reduction rate in ***	n virus titer	4.0	4.0	4.0	4.0	
	Logarithmic TCID50 value of virus per ml Logarithmic TCID50 value of virus which was exposed to disinfectant at different contact time and conditions Logarithmic TCID50 ratio of virus titer and virus titer with the disinfectant						
COMMENT	As tested concentration MANOCHOL EP-70; 10 %, was found to exert cytotoxicit against test cell culture, the highest concentration of the disinfectant which did not display an toxicity, 1 % was used in the experiments. According to the calculations based on test results 100 % concentration of MANOCHOL EP-70 provided at least 4 log reduction in virus titer a room temperature (20 °C) in all test conditions (see result table) for 1 and 60 minutes contact time. According to the Antimicrobial Division US EPA standards, disinfectants has to provid minimum 4 log virus titer reduction to be an acceptable virucidal agent. The results of the test show that MANOCHOL EP-70 possesses 99.99% antiviral activity against Murine Norovirus at room temperature (20 °C) for 1 and 60 minutes contact time when used at 100 % concentration.						

Binnur KIRATLI

Prof. Fikrettin SAHIN Chair of Brocinal Laboratory