



# TEST REPORT

1. NO : CT20-125363E

2. Client

○ Name : LT Electronics Co., Ltd.

○ Address : #301, Daelim Polymer BLDG, LS-ro 166beongil 16-1, Gunpo Si, Gyeonggi Do, Korea

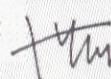
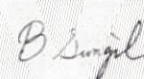
3. Date of Test : 2020.11.03 ~ 2020.11.18

4. Use of Report : Quality Control

5. Test Sample : UV-LED[Vitok portable uvc sterilizing lamp]

6. Test Method

(1) Client's requirement method


Affirmation	Tested By Name : Na, Dong Hyun 	Technical Manager Name : BIN SUNG IL 
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This report is not accredited by KOLAS.

Our report apply only to the standards or procedures identified and to the sample(s) tested unless otherwise specified. The test results are not indicative of representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products. The results of using only a portion of this report cannot be guaranteed. The authenticity of this test report can be checked on KCL website([www.kcl.re.kr](http://www.kcl.re.kr)).

2020.11.18

**Korea Conformity Laboratories**

President Yoon, Kap Seok 

※ 2020.11.18 Reissuance R2 Tested by : Na, Dong Hyun, Technical Manager : BIN SUNG IL

Result Inquiry : unit108, Industry-Academic Cooperation Foundation, Hankyong National University, 327, Jungang-ro, Anseong-si, Gyeonggi-do, 17579, Korea (82-31-389-9193)





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## 7. Test Results

Test Items	Test method	Test Results			Testing Environment
		Early Conc. (CFU/mL)	After 10 min Conc. (CFU/mL)	Reduction rate (%)	
Antibacterial test : <i>Escherichia coli</i>	BLANK	$1.3 \times 10^4$	$1.3 \times 10^4$	—	(37.0 ± 0.2) °C
	UV-LED [Vitok portable uvc sterilizing lamp]	$1.3 \times 10^4$	< 10	99.9	
Antibacterial test : <i>Klebsiella pneumoniae</i>	BLANK	$1.3 \times 10^4$	$1.3 \times 10^4$	—	
	UV-LED [Vitok portable uvc sterilizing lamp]	$1.3 \times 10^4$	< 10	99.9	
Antibacterial test : MRSA ( <i>Staphylococcus aureus</i> subsp. <i>aureus</i> )	BLANK	$1.0 \times 10^4$	$1.0 \times 10^4$	—	
	UV-LED [Vitok portable uvc sterilizing lamp]	$1.0 \times 10^4$	< 10	99.9	

※ CFU : Colony Forming Unit

※ Test bacteria : *Escherichia coli* ATCC 25922  
*Klebsiella pneumoniae* ATCC 4352  
 MRSA(*Staphylococcus aureus* subsp. *aureus*) ATCC 33591

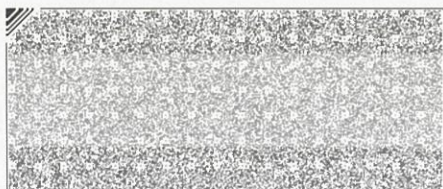
※ Sample : UV-LED[Vitok portable uvc sterilizing lamp]

※ Client's requirement method

- Test time : 10 minutes
- Distance between of the medium inoculated with the bacteria and lamp of the sample : 5 cm

※ Inoculum preparation, Inoculation method, Assessment of Results : KCL-FIR-1002:2018 Mod.

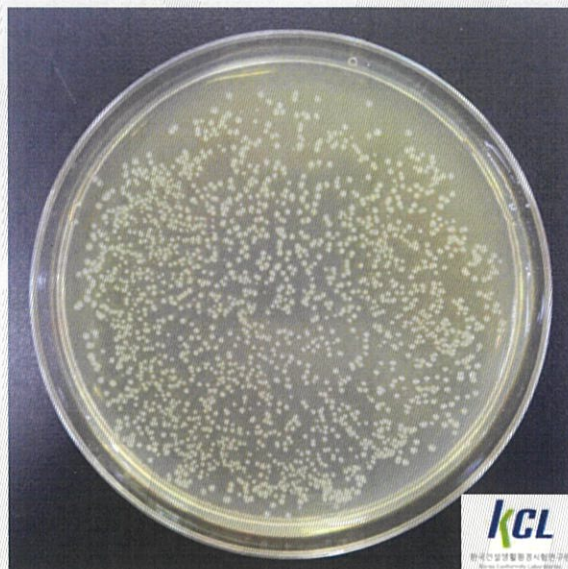
※ Location : unit108, Industry-Academic Cooperation Foundation, Hankyong National University, 327, Jungang-ro, Anseong-si, Gyeonggi-do, 17579, Korea



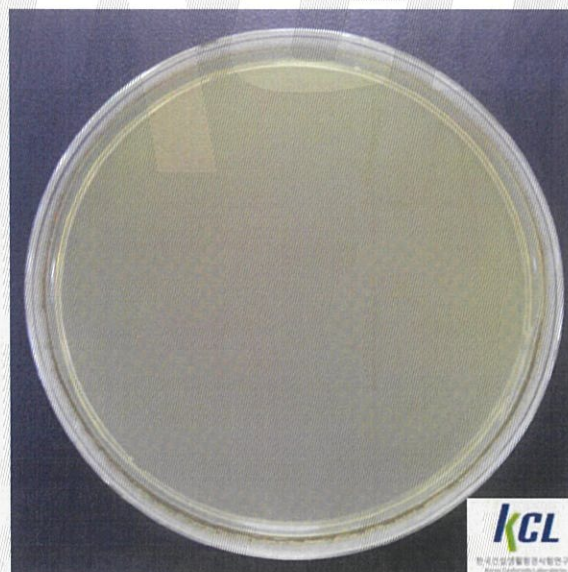


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<Picture 1. *Escherichia coli* - BLANK (0 h)>



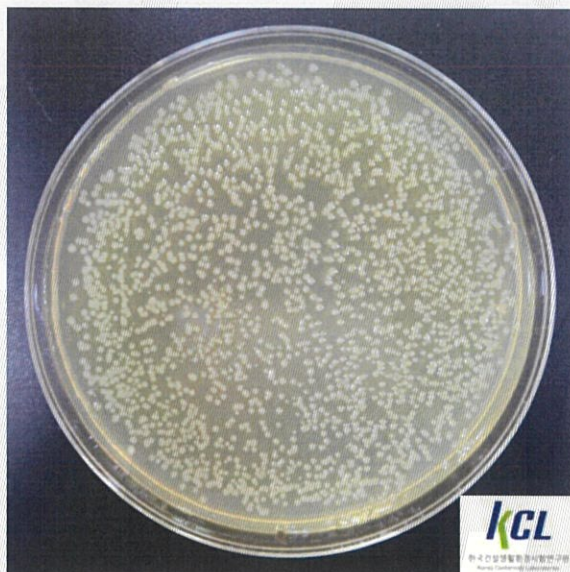
<Picture 2. *Escherichia coli* - UV-LED[Vitok portable uvc sterilizing lamp] (10 min)>



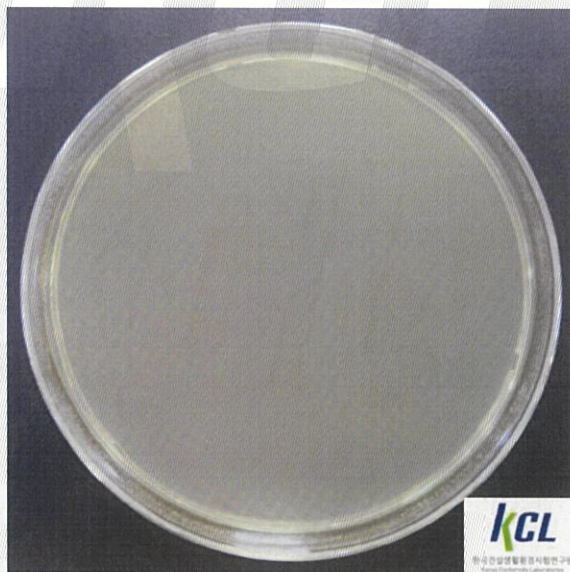


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<Picture 3. *Klebsiella pneumoniae* - BLANK (0 h)>



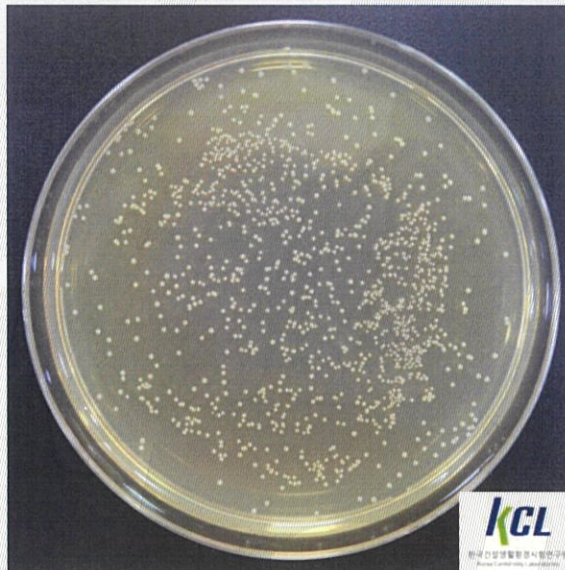
<Picture 4. *Klebsiella pneumoniae* - UV-LED[Vitok portable uvc sterilizing lamp] (10 min)>



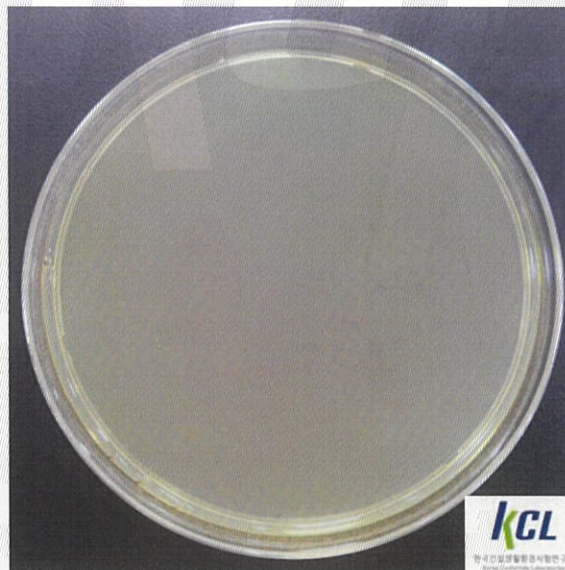


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<Picture 5. MRSA(*Staphylococcus aureus subsp. aureus*) – BLANK (0 h)>



<Picture 6. MRSA(*Staphylococcus aureus subsp. aureus*) – UV-LED[Vitok portable uvc sterilizing lamp] (10 min)>

----- End of Report -----

