



**LABORATORIUM KIMIA TERPADU INSTITUT PERTANIAN BOGOR  
INTEGRATED LABORATORY BOGOR AGRICULTURAL UNIVERSITY**

Gedung Pascasarjana Wing Kimia Lantai Dasar Kampus IPB Baranangsiang, Jl. Pajajaran Bogor 16144  
Phone/Fax. 0251-8319894, 8323571, Email : admin@ilab-ipb.org ISO/IEC 17025 Certificate No : LP-156-IDN



Certificate No. : LT-10-16-0853  
Lab. No. : BM/IX/16/2371-2375  
Customer : PT AICA INDONESIA  
Address : Jl. Ir H. Juanda No 318 Bekasi  
Sample Matrix : Material  
Test for : Antibacterial Activity  
Received Date : 13-09-2016  
Issued Date : 01-11-2016



Head of Laboratory,

*[Signature]*  
Dr. Komar Sutriah, MS  
NIP. 19630705 199103 1 004



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Certificate No. : LT-10-16-0853  
Laboratory No. : BM/IX/16/2371  
Product : STT30  
Test For : Antibacterial Activity\*

Received Date : 13-09-2016  
Finished Date : 25-10-2016

Microorganism Strains	$N_t$ (cfu/cm <sup>2</sup> )	Log (mean of $N_t$ )	$A_t$ (cfu/cm <sup>2</sup> )	Log (mean of $A_t$ )	R	Method
Escherichia coli (ATCC 25922)	$1.13 \times 10^3$	3.07	$2.57 \times 10^3$	3.42	-0.35	JIS Z 2801 (2010)
	$1.22 \times 10^3$		$2.64 \times 10^3$			
	$1.20 \times 10^3$		$2.75 \times 10^3$			
Staphylococcus aureus (ATCC 6538)	$9.55 \times 10^2$	2.95	$2.69 \times 10^3$	3.42	-0.47	
	$8.35 \times 10^2$		$2.45 \times 10^3$			
	$8.66 \times 10^2$		$2.70 \times 10^3$			

#### REMARKS

\*) Outside the scope of accreditation

$N_t$  = Number of viable bacteria on blank sample after 24 hours of incubation

$A_t$  = Number of viable bacteria on test sample after 24 hours of incubation


The blank sample and the test samples were tested in triplicate

$R$  (antibacterial activity) =  $\log(N_t) - \log(A_t)$

If  $R \geq 2$  then the product is bactericidal

#### Conclusion :

The product **STT30** is **not bactericidal** ( $R < 2$ ) on the reference strain: Escherichia coli (ATCC 25922) and Staphylococcus aureus (ATCC 6538) in accordance with Japanese Industrial Standard JIS Z 2801 : 2010, for a contact time of 24 hours at 25 °C.

November 01, 2016  
Head of Laboratory,  
  
Dr. Komar Sutriah, MS  
NIP. 19630705 199103 1 004



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Certificate No. : LT-10-16-0853  
Laboratory No. : BM/IX/16/2372  
Product : AK13002 Anti Bakteri  
Test For : Antibacterial Activity\*

Received Date : 13-09-2016  
Finished Date : 25-10-2016

Microorganism Strains	$N_t$ (cfu/cm <sup>2</sup> )	Log (mean of $N_t$ )	$A_t$ (cfu/cm <sup>2</sup> )	Log (mean of $A_t$ )	R	Method
Escherichia coli (ATCC 25922)	$1.13 \times 10^3$	3.07	< 0.63	< - 0.2	> 3.27	JIS Z 2801 (2010)
	$1.22 \times 10^3$		< 0.63			
	$1.20 \times 10^3$		< 0.63			
Staphylococcus aureus (ATCC 6538)	$9.55 \times 10^2$	2.95	< 0.63	< - 0.2	> 3.15	
	$8.35 \times 10^2$		< 0.63			
	$8.66 \times 10^2$		< 0.63			

## REMARKS

\*) Outside the scope of accreditation

$N_t$  = Number of viable bacteria on blank sample after 24 hours of incubation

$A_t$  = Number of viable bacteria on test sample after 24 hours of incubation

The blank sample and the test samples were tested in triplicate

$R$  (antibacterial activity) =  $\log(N_t) - \log(A_t)$

If  $R \geq 2$  then the product is bactericidal

## Conclusion :

The product **AK13002 Anti Bakteri** is **bactericidal** ( $R \geq 2$ ) on the reference strain: Escherichia coli (ATCC 25922) and Staphylococcus aureus (ATCC 6538) in accordance with Japanese Industrial Standard JIS Z 2801 : 2010, for a contact time of 24 hours at 25 °C.

November 01, 2016

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## LABORATORY TEST REPORT

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Certificate No. : LT-10-16-0853  
Laboratory No. : BM/IX/16/2373  
Product : AS13002 non Anti Bakteri  
Test For : Antibacterial Activity\*

Received Date : 13-09-2016  
Finished Date : 25-10-2016

Microorganism Strains	$N_t$ (cfu/cm <sup>2</sup> )	Log (mean of $N_t$ )	$A_t$ (cfu/cm <sup>2</sup> )	Log (mean of $A_t$ )	R	Method
Escherichia coli (ATCC 25922)	$1.13 \times 10^3$	3.07	< 0.63	< - 0.2	> 3.27	JIS Z 2801 (2010)
	$1.22 \times 10^3$		< 0.63			
	$1.20 \times 10^3$		< 0.63			
Staphylococcus aureus (ATCC 6538)	$9.55 \times 10^2$	2.95	< 0.63	< - 0.2	> 3.15	
	$8.35 \times 10^2$		< 0.63			
	$8.66 \times 10^2$		< 0.63			

### REMARKS

\*) Outside the scope of accreditation

$N_t$  = Number of viable bacteria on blank sample after 24 hours of incubation

$A_t$  = Number of viable bacteria on test sample after 24 hours of incubation

The blank sample and the test samples were tested in triplicate

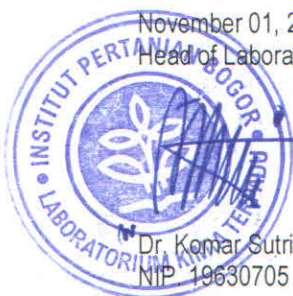
$R$  (antibacterial activity) =  $\log(N_t) - \log(A_t)$

If  $R \geq 2$  then the product is bactericidal

### Conclusion :

The product **AS13002 non Anti Bakteri** is **bactericidal** ( $R \geq 2$ ) on the reference strain: Escherichia coli (ATCC 25922) and Staphylococcus aureus (ATCC 6538) in accordance with Japanese Industrial Standard JIS Z 2801 : 2010, for a contact time of 24 hours at 25 °C.

November 01, 2016  
Head of Laboratory,



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## LABORATORY TEST REPORT

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Certificate No. : LT-10-16-0853  
Laboratory No. : BM/IX/16/2374  
Product : AK14015 Anti Bakteri  
Test For : Antibacterial Activity\*

Received Date : 13-09-2016  
Finished Date : 25-10-2016

Microorganism Strains	$N_t$ (cfu/cm <sup>2</sup> )	Log (mean of $N_t$ )	$A_t$ (cfu/cm <sup>2</sup> )	Log (mean of $A_t$ )	R	Method
Escherichia coli (ATCC 25922)	$1.13 \times 10^3$	3.07	< 0.63	< - 0.2	> 3.27	JIS Z 2801 (2010)
	$1.22 \times 10^3$		< 0.63			
	$1.20 \times 10^3$		< 0.63			
Staphylococcus aureus (ATCC 6538)	$9.55 \times 10^2$	2.95	< 0.63	< - 0.2	> 3.15	
	$8.35 \times 10^2$		< 0.63			
	$8.66 \times 10^2$		< 0.63			

### REMARKS

\*) Outside the scope of accreditation

$N_t$  = Number of viable bacteria on blank sample after 24 hours of incubation

$A_t$  = Number of viable bacteria on test sample after 24 hours of incubation

The blank sample and the test samples were tested in triplicate

$R$  (antibacterial activity) =  $\log(N_t) - \log(A_t)$

If  $R \geq 2$  then the product is bactericidal

### Conclusion :

The product **AK14015 Anti Bakteri** is **bactericidal** ( $R \geq 2$ ) on the reference strain: Escherichia coli (ATCC 25922) and Staphylococcus aureus (ATCC 6538) in accordance with Japanese Industrial Standard JIS Z 2801 : 2010, for a contact time of 24 hours at 25 °C.

November 01, 2016  
Head of Laboratory,

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Certificate No. : LT-10-16-0853  
Laboratory No. : BM/IX/16/2375  
Product : AS14015 non Anti Bakteri  
Test For : Antibacterial Activity\*

Received Date : 13-09-2016  
Finished Date : 25-10-2016

Microorganism Strains	$N_t$ (cfu/cm <sup>2</sup> )	Log (mean of $N_t$ )	$A_t$ (cfu/cm <sup>2</sup> )	Log (mean of $A_t$ )	R	Method
Escherichia coli (ATCC 25922)	$1.13 \times 10^3$	3.07	< 0.63	< - 0.2	> 3.27	JIS Z 2801 (2010)
	$1.22 \times 10^3$		< 0.63			
	$1.20 \times 10^3$		< 0.63			
Staphylococcus aureus (ATCC 6538)	$9.55 \times 10^2$	2.95	< 0.63	< - 0.2	> 3.15	
	$8.35 \times 10^2$		< 0.63			
	$8.66 \times 10^2$		< 0.63			

#### REMARKS

\*) Outside the scope of accreditation

$N_t$  = Number of viable bacteria on blank sample after 24 hours of incubation

$A_t$  = Number of viable bacteria on test sample after 24 hours of incubation

The blank sample and the test samples were tested in triplicate

$R$  (antibacterial activity) =  $\log(N_t) - \log(A_t)$

If  $R \geq 2$  then the product is bactericidal

#### Conclusion :

The product **AS14015 non Anti Bakteri** is **bactericidal** ( $R \geq 2$ ) on the reference strain: Escherichia coli (ATCC 25922) and Staphylococcus aureus (ATCC 6538) in accordance with Japanese Industrial Standard JIS Z 2801 : 2010, for a contact time of 24 hours at 25 °C.

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