STUNTING

disebabkan

PERMASALAHAN AIR BERSIH DI INDONESIA

PT ECOSAINS HAYATI

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Ecos LabStore

Who is Ecosains?

Eco-Sains

We Offer
Excellent product in wide range application

General Laboratory Equipment
Analytical Measurement Equipment
Life Science Equipment

We
Commit to serve with sincere heart

Friendly sales team
Favorable staff member

We Are
Official distributor for famous brand names

Cole-Parmer · stuart · Jenway · TECHNE · PCRmax
ARCIS · Haier Biomedical · UGAIYA · euromex · WATER-I.D.
Milwaukee · Tip Biosystems · TECTA - PDS · APERA INSTRUMENTS · 마이크로녹스
BIOSEARCH TECHNOLOGIES · Lucigen · epicentre · KRÜSS · DNA DIAGNOSTIC · DLAB

OUR TEAM

- Application Scientist
- Sales Marketing
- Sales Engineer
- Logistic

We accomodate your satisfaction in laboratory experiences

What is Our Products?

Eco-Sains

USA

APERA INSTRUMENTS

Pocket Testers
Smart Pocket Testers
Solutions
Portable Maters
Portable pH Meters for industrial Applications
Accessories
Benchtop Meters
Electrodes/ Probes

BIOSEARCH TECHNOLOGIES

DNA Synthesizer & Custom Oligos

Lucigen

epicentre

CRISPR Gene Editing
Cloning Kits & Vectors
Competent Cells
Enzymes
In Vitro Transcription
Next Generation Sequencing
Nucleic Acis Estraction and Purification
PCR & Amplificatio
Protein Expression
Transposon Mutagenesis

CANADA

TECTA - PDS

Tecta - Model B16
Fully Automated Microbiolody Systems

UNITED KINGDOM

stuart

Block Heater
Colony Counter
Water Bath
Incubator
Flocculator
Microcentrifuge
Heating Mantles
Homoginezer
Hotplate/Stirrers
Overhead Stirrers
Vortex Mixer
Melting Point
Recirculating Cooler
Water Stills
Rolles
Rotary Evapolator

Jenway

Spectrophotometer
Colourimeter
Fluorimeter
Flame Photometer
pH Meter
Conductivity Meter
DO Meter

TECHNE

Thermal Cycler
Dri Block Heater
Thermoregulator
Gelatin Time
Sample Concetrator
Sample Cooling
Hybridisation Incubator
qPCR & Reagents

PCRmax

Thermal Cycler
qPCR & Reagents

ARCIS BIOTECHNOLOGY

DNA Extraction KIT
2 Way Step Only 3 Minute

GERMANY

WATER-I.D.

Photometer
Pooltester
Test Strips
Electonic Meters
Comparator-Kit
Special Processes
Balanced Water Kits
Bacteria Testing Reagents

KRÜSS

Bubble Pressure Tensiometer
Dynamic Foam Analyzer
Drop Shape Analyzer
Drop Volume Tensiometer
Foam Tester
High Pressure Foam Analyzer
Force Tensiometer
Mobile Surface analyzer
Ross Miles Foam Analyzer
Spinning Drop Tensiometer
Surface Roughness Snalyzer
Surface Roughness Testes
Top View Analyzer

NETHERLANDS

euromex microscopes holland

UPRIGHT Microscopes
STEREO Microscopes
INVERTED Microscopes
PHASE CONTRAST Microscopes
FLUORESCENCE Microscopes
POLARIZATION Microscopes
DARKFIELD Microscopes
DIGITAL SOLUTIONS Cameras & Tablet sameras
ILLUMINATION SULUTIONS For stereo microscopy
MAGNIFIERS & MEASURING Microscopes
Q-SCOPE Handheld USB Microscopes

DENMARK

DNA DIAGNOSTIC

Screening Kits for Leukimia associated Translocations

HUNGARY

Milwaukee

Pens
Pro Testers
PRO Meters
PRO Monitors
Refractometers
Photometers
Mini Titrators
Replacement Probes
Solutions and Care Kit

SINGAPORE

Tip Biosystems

Portable & Handheld Spectrophotometers
Photopette ® Cells
Photopette ® Bio
Photopette ®Turbidity
Photopette ®OD600
Photopette ®Custom

KOREA

마이크로녹스

Laboratory Scale
- MN230A
- MN400BF

Semi Production
- MN600P

Produck Scale
- MN100/200/300
- Es Series

JAPAN

UGAIYA BIO-SCIENCES

Nitrogen Tank
Freezers
Chest Freezers
Lab Refrigerator

Haier Biomedical

- 150 C Cryo Freezer
- 86 C ULT Freezer
- 60 C Biomedical Freezer
- 40 C Biomedical Freezer
- 30 C Biomedical Freezer
- 25 C Biomedical Freezer

Combined Refrigerator and Freezer
Pharmacy Refrigerator
Under Counter Pharmacy - Refrigerator
Spark Free Refrigerator/ Freezer
Blood Bank Refrigerator
Laboratory Refrigerator
Constant Temperature-Transoort Cooler

Stunting

2024

Stunting adalah permasalahan gizi kronis yang disebabkan oleh kurangnya asupan gizi dalam rentang yang cukup waktu lama, umumnya hal ini karena asupan makan yang tidak sesuai dengan kebutuhan gizi.

Pemerintah menargetkan penurunan angka stunting menjadi 14% pada akhir 2024. Untuk mencapai target tersebut, pemerintah harus mengupayakan penurunan angka stunting sebesar 3,8% setiap tahunnya

Penyebab Stunting

Dalam riset Kementerian Kesehatan (Kemkes), ada beberapa faktor yang mempengaruhi stunting diantaranya 40% dapat disebabkan karena gizi buruk dan 60% dikarenakan tidak adanya air bersih dan sanitasi yang buruk. Ketua Komisi D DPRD DKI Jakarta Ida Mahmudah mengingatkan air tanah yang tercemar bakteri Escherichia coli atau *E.coli* dapat menyebabkan stunting pada anak-anak. Cemaran *E.coli* pada air yang digunakan pada kegiatan sehari hari, dapat menghambat penyerapan nutrisi dalam tubuh, sehingga tubuh tidak mendapatkan nutrisi yang cukup dan dapat menyebabkan terjadinya stunting.

Kepala Subdirektorat Penyehatan Air dan Sanitasi Dasar Direktorat Kesehatan Lingkungan Kementerian Kesehatan, Sonny Priajaya Warouw, menyatakan bahwa pengecekan kualitas air di Indonesia terkendala karena lebih dari 9.000 puskesmas tidak mempunyai perangkat untuk mengetes dan memonitor kualitas air, kurangnya sumber daya manusia, dan dana yang terbatas.

PENDETEKSIAN CEPAT E.COLI

Permasalahan pengujian kualitas air : tidak adanya peralatan laboratorium mikrobiologi yang lengkap di setiap daerah dan tidak adanya SDM terlatih, serta lamanya waktu pengujian

INI SOLUSINYA

PENGUJIAN KUALITAS AIR HANYA DENGAN SATU ALAT

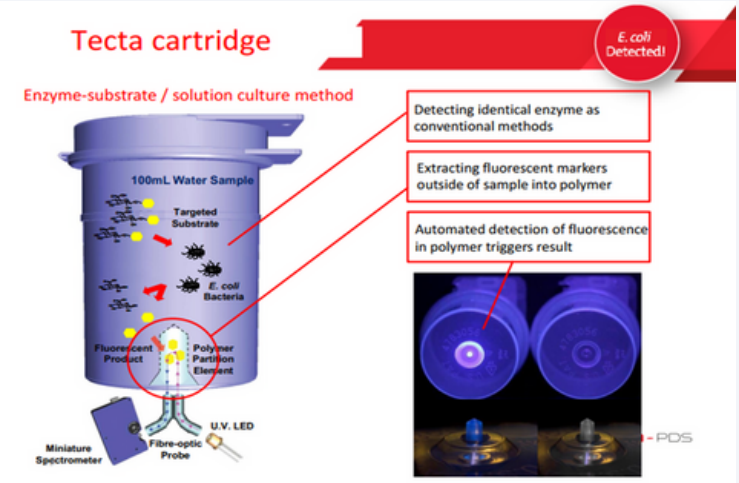
TECTA - PDS

- ***Fully automatics***
- **Tanpa SDM terlatih**
- **Tanpa laboratorium mikrobiologi**
- **Cepat**
- **Range pengujian <1 - 10^8 CFU/100ml**
- **USEPA *approved***
- **Tidak ada preparasi sampel dan visual interpretasi hasil**
- **Tidak terpengaruh dari warna sampel**

Alur pengujian

Sampling | Masukkan sampel ke tecta catridge | Homogenkan | Masukkan ke Tecta-PDS | Hasil kurang dari 24 jam

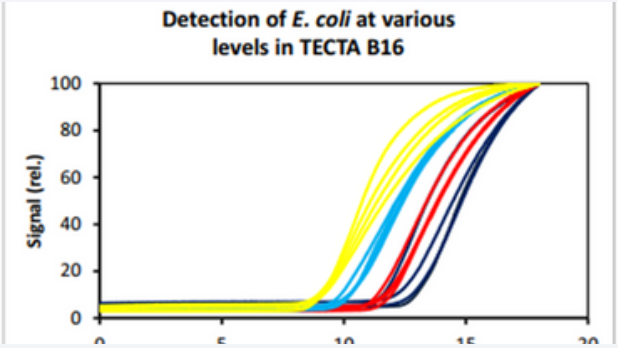
BAGAIMANA TECTA DAPAT MENDETEKSI BAKTERI ?



Tecta-PDS B16 memiliki 16 *incubation chambers*. Pengujian Tecta-PDS menggunakan metode *enzyme-substrate* yang dikombinasi dengan ***Polymer Partition*** teknologi dan spektrofotometer yang dapat membaca dan menginterpretasikan hasil pengujian. Hasil akan diterima 2-24 jam.

ANALISIS KUANTITATIF

Pengaturan signal dilakukan untuk mendapatkan *Time To-Detection* (TTD). TTD secara linear berelasi dengan log CFU bakteria, yang akan mengindikasikan waktu untuk pertumbuhan dan ekspresi dari enzim



CFU / 100mL v TTD value	
< 1 (absent)	18 hours
1 CFU	10h 40m
100 CFU	8h 40m
1000 CFU	7h 30m
10,000 CFU	6h 30m
10^6 CFU	4h 20m

****default calibration – E. coli-only test*

VALIDASI, VERIFIKASI, DAN APPROVAL

US-EPA

EPA/600/R-14/307
February 2007

Environmental Technology Verification Report

ENDETEC TECTA™ B-16 BY PATHOGEN DETECTION SYSTEMS, INC.

Prepared by
Battelle
The Business of Innovation

Under a cooperative agreement with
EPA

Dilution (target concentration)	TECTA B-16 TC and EC		Colilert-18	
	N	% of total samples	N	% of total samples
A (5 CFU/100 mL)	20	100%	20	100%
B (0.5 CFU/100 mL)	6	30%	11	55%

N – Number of replicates

Table 7-2. Confirmed Result Summary of TECTA B-16

EC target concentration:	0.5 CFU/100 mL	5 CFU/100 mL
Sensitivity	100%	100%
Specificity	100%	NA
False Positive	0%	NA
False Negative	0%	0%

NA = undefined results because of zero in denominator

New Zealand Ministry of Health Approval

- Received March 2016
- *"MOH is satisfied that TECTA-B16 can be used for bacterial compliance monitoring"*

MINISTRY OF HEALTH

National Institute of Environmental Research (NIER), South Korea

National Institute of Environmental Research

AOAC Certified

– *"Performance identical to reference methods at detection limit of one viable organism in 100mL sample"*

AOAC RESEARCH INSTITUTE

CERTIFICATION

AOAC® *Performance Tested*℠

Certificate No.
010801

TECTA Combined *E. coli* and Total Coliform Test

Ministry of Environment, Ontario, Canada *(published in Journal of Microbiological Methods, 2009)*

– 100% detection by non-micro operator under field conditions
– Better accuracy than reference method

SUCCSES STORY

Benefits Detected - Fast Accurate Results in 2-18 Hours

The benefits of using TECTA™ as part of a daily testing regime are: SPEED, ACCURACY, and AUTOMATION, including:

- *U.S. EPA approved method*
- *Laboratory-grade results*
- *Immediate Email notification of results upon detection*
- *Completely automated test procedure*
- *Automated results report*
- *Fast detection time*
- *Extremely sensitive at lower concentrations*

Success Detected

PUB has received SAC Singlas accreditation of the TECTA™ unit within their mobile lab. This mean they are actually running accredited drinking water compliance tests for *E. coli* bacteria while driving down the road.

Once the team is dispatched, samples can be collected on site and be tested in the TECTA™ unit in the mobile lab. Once all the samples for the day are collected and running in the TECTA™, the mobile lab return to the central station where they are able to plug in the charging cable to a power source to charge up the Li-battery.

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- *Immediate Email notification of results upon detection*
- *Completely automated test procedure*
- *Automated results report*
- *Fast detection time*
- *Extremely sensitive at lower concentrations*
- *Accurate digital results vs. other testing subject to bias of visual reads*

Success Detected

Tamworth is host to the Tamworth Country Music Festival (TCMF). Forty-five years young, the TCMF is a leading tourism event for NSW and internationally recognized as one of the top 10 festivals in the world and the largest country music festival in the southern hemisphere. Contributing in excess of $51m to the local economy, it attracts a staggering 50,000 people. Essentially the population of Tamworth doubles for the ten days of the festival. Please visit tcmf.com.au for further information on this major event. The TECTA™ B16 has enabled further security to microbiological response times during this massive increase in population to the City of Tamworth.

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