



## Colilert-18\*



Simultaneously detects both total coliforms and *Escherichia coli* in water, or fecal coliforms in wastewater, giving you results in 18 hours.

- Read afternoon samples the next morning—before the next day’s samples arrive.
- Lift boil water alerts in 18 hours.
- Provide results in record time for real estate, new well, and new construction samples.
- Read Friday samples early Saturday, leaving the rest of the weekend free.

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# Overview

## Easy

- Ease of use simplifies training.
- Unit-dosed packaging eliminates media preparation.
- No repeat testing due to clogged filters or heterotrophic interference.
- Quality Control (QC) procedure can be done in 15 minutes.

## Rapid

- Under 1-minute hands-on time.
- Detects coliforms and *E. coli* simultaneously in 18 hours or less.
- No confirmations needed.
- No glassware cleaning or colony counting.

## Accurate

- Identifies *E. coli* specifically, eliminating unnecessary public notification due to non-target organisms.
- Suppresses up to 2 million heterotrophs per 100 mL.
- Eliminates the subjective interpretation found in traditional methods.
- Detects a single viable coliform or *E. coli* per sample.

## Economical

- Minimizes evening and weekend work.
- Up to 15-month shelf life at room temperature.

## Flexible

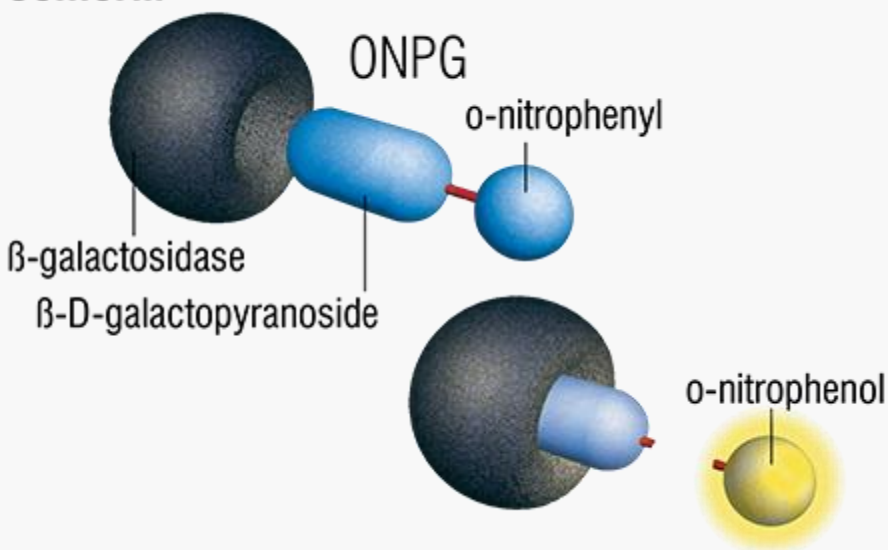
- Can be used for presence/absence (P/A) or quantification testing with [Quanti-Tray and Quanti-Tray/2000](#).

# Science

## How it works

The Colilert-18 test uses a proprietary Defined Substrate Technology (DST) nutrient indicators ONPG and MUG to detect coliforms and *E. coli*. Coliforms use their  $\beta$ -galactosidase enzyme to metabolize ONPG and change it from colorless to yellow.

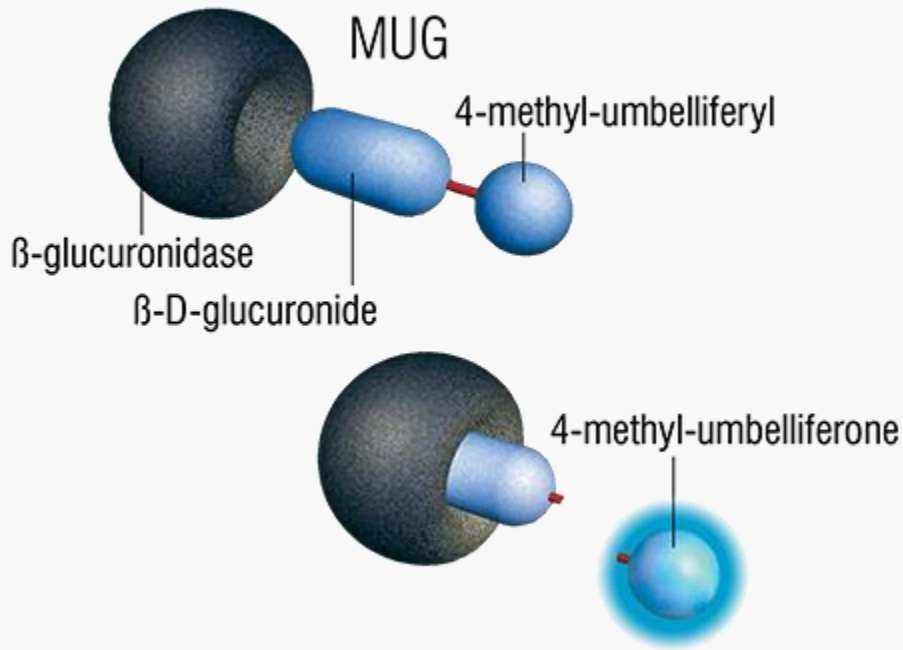
### Coliform



*E. coli* use  $\beta$ -glucuronidase to metabolize MUG and create fluorescence. Since most non-coliforms do not have these enzymes, they are unable to grow and interfere. The few non-

coliforms that do have these enzymes are selectively suppressed by the Colilert-18 test's specifically formulated matrix.

### *E. coli*



This approach is different from traditional media, which provide a nutrient-rich environment that supports the growth of both target organisms and nontargets. When nontargets grow and mimic target organisms, false positives occur. Growth of nontargets can also suppress target organisms and give false negatives in traditional media. To suppress nontargets, traditional media often include high levels of salts, detergents, or other selective agents that may inadvertently suppress target organisms and give further false negatives.

Only IDEXX reagents have been validated and are approved for use with [Quanti-Tray](#) and [Quanti-Tray/2000](#).

# How to use

## Learn how to use the Colilert-18 test

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### Presence/Absence

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#### Step 1



Add reagent to sample and incubate at  $35^{\circ}\text{C} \pm$

$0.5^{\circ}\text{C}$  for 18 hours.

#### Step 2



Read results:

Colorless = negative

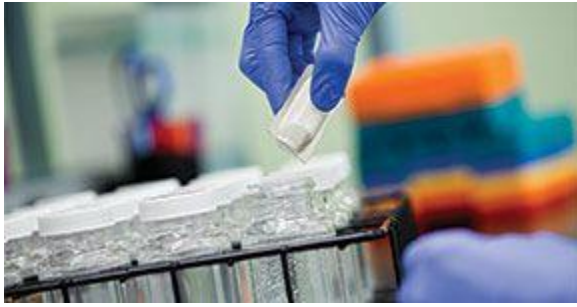
Yellow = total coliforms

Yellow/fluorescent = *E. coli*

# Quantification

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## Step 1



Add reagent to sample.

## Step 2



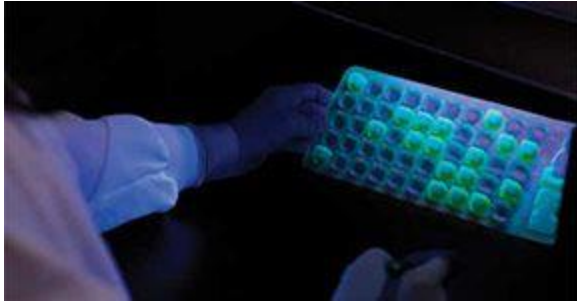
Pour into [Quanti-Tray](#) (counts from 1–200)  
or [Quanti-Tray/2000](#) (counts from 1–2,419)

## Step 3



Seal in [Quanti-Tray Sealer](#) and place in  $35^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$  incubator for 18 hours (in other countries, the temperature requirement may be different per regulatory requirements).

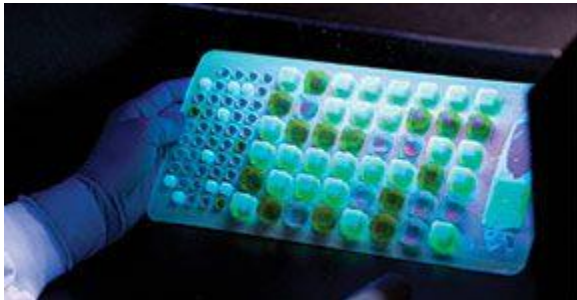
#### Step 4: Quanti-Tray



Quanti-Tray—Read results:

- Yellow wells = total coliforms
- Yellow/fluorescent wells = *E. coli*
- Count positive wells and refer to [MPN table](#)

#### Step 4: Quanti-Tray/2000



Quanti-Tray/2000—Read results:

- Yellow wells = total coliforms
- Yellow/fluorescent wells = *E. coli*
- Count positive wells and refer to [MPN table](#)