

Here is some information on Colitag compared to Colilert:

1) Colitag was approved through US EPA's extensive ATP testing program. Colitag was found to have both an E. coli and coliform false negative rate of 0.0% and a total coliform false-positive rate of 5.0%. These results were derived by EPA microbiologists using the ATP data review protocol and communicated to CPI through an official letter notification and publication in the March 2002 Federal Register (page 10538, Vol. 67 No. 45). For comparison with another P/A method, Colilert® was reported to have a 9% false-negative rate for E. coli and a 13% false-positive rate for total coliforms during the EPA approval process. These results are documented in the July 17, 1989 Federal Register (page 29998, paragraph II.B, third column) and in the June 10, 1992 Federal Register (page 24745, first full paragraph in the first column), and are available on Idexx's website. When the US EPA approved Colitag, they published that the data from EPA's ATP protocol testing showed Colitag compared favorably to the approved Standard Method to which it was compared.

2) Also, please find attached a presentation given at the AWWA-WQTC conference in November 2005. It is an evaluation comparing the 10 USEPA approved enzyme substrate coliform testing methods presented by the Wisconsin State Laboratory of Hygiene. The liquid test methods included in this study were Colitag, Colilert, Colilert 18, Colisure, ReadyCult and E*colite. The others were membrane filtration methods. For the study, researchers tested drinking groundwater samples that were collected at three separate sites in the state of Wisconsin and spiked with both low and high levels of E. coli and 4 different other coliform bacteria species (Citrobacter, Enterobacter, Klebsiella, and Serratia). Sampling from three separate sites allowed for observing the performance of each method in chemically diverse water samples.

Each method was scored for its ability to detect both E. coli and the coliforms in the Presence / Absence data format. The data is shown on slides 20, 21, and 22. At the top of each column, the name of the microbe is shown. The second row shows the microbe spiking level in one of two categories, either: 1) Fewer than 10 cells or 2) In the higher range of 50-100 cells. An "A" represents an absence result, a "P" represents a presence result. Each spiked sample was tested in triplicate to assure the validity of the observations. A method had to show an absence result at least two out of three times for a single sample in order to score an "A", or a failure to detect a particular microbe.

As you can see from the charts, Colitag and Colilert 24 were the only two liquid methods that produced all presence results, detecting all instances of E. coli and coliform contamination at both high and low levels. Colilert 18 failed to detect Klebsiella in low concentrations at the first site. Colisure, ReadyCult, and Charm's E*colite also produced multiple failures.