



INDOXYL ACETATE DISKS

- For in vitro use only -

Catalogue No. DI40

Our Indoxyl Acetate Disks can aid in the rapid identification and differentiation of *Campylobacter* and *Helicobacter* species based on their ability to hydrolyze the chemical substrate indoxyl acetate. This test is useful for differentiating:

1. *Campylobacter coli* (+), *C. cryaerophila* (+), *C. fennelliae* (+), *C. jejuni* (+), *C. upsaliensis* (+) from *C. fetus* subsp. *fetus* (-), *C. fetus* subsp. *venerealis* (-), *C. hyointestinalis* (-), *C. lari* (-) and other *Campylobacter* species (-)
2. *Helicobacter mustelae* (+) from *H. pylori* (-)

The increasing importance and emergence of *Campylobacter* species as a causative agent for human and animal infections has made their detection critical. This has resulted in the development of a number of physiological and biochemical tests to aid in their identification, such as hippurate hydrolysis tests, and susceptibility tests to cephalothin and nalidixic acid. The emergence of atypical, hippurate negative, strains and nalidixic acid resistant strains has made the detection and identification of *Campylobacter* species more difficult. The use of indoxyl acetate was developed and reported by Mills and Gherna in 1987. They examined a variety of substrates and found that certain *Campylobacter* species possessed an esterase capable of hydrolyzing the compound indoxyl acetate. The results from this rapid biochemical test has proven to be a stable, phenotypic feature for *Campylobacter* species making it very useful in their identification and differentiation. This test has also been shown to be useful in the differentiation of *Helicobacter* and *Wolinella* species.

Recommended Procedure

1. Place disk in an empty, sterile petri-dish. Allow disk to adjust to room temperature for 2 to 3 minutes prior to proceeding.
2. Moisten disk with a drop of sterile water.
3. Using a sterile inoculating loop, heavily inoculate the moistened disk with several colonies of the test organism derived from a pure, fresh culture.
4. Incubate for 30 minutes at room temperature.
5. Examine disk after the incubation period and interpret and record the results.

Interpretation of Results

Positive: Blue color change

Negative: No color change

Quality Control

Organism	Expected Results
<i>Campylobacter jejuni</i> ATCC 33291	+ve Blue color change
<i>Campylobacter fetus</i> ATCC 27374	-ve No color change

Storage and Shelf Life

Our Indoxyl Acetate Disks should be stored at -20°C. At this temperature they have a shelf life of 32 weeks from the date of manufacture.

Ordering Information

Cat#	Description	Format
DI40-25	Indoxyl Acetate Disks	25/vial

References

1. Mills CK, Gherna RL. Hydrolysis of indoxyl acetate by *Campylobacter* species. *J Clin Microbiol* 1987; 25:1560-1.
2. Altwegg M, Burnens A, Zollinger-Iten J, Penner JL. Problems in the identification of *Campylobacter jejuni* associated with acquisition of resistance to nalidixic acid. *J Clin Microbiol* 1987; 25:1807-8.
3. Hodge DS, Borczyk A, Wat L. Evaluation of indoxyl acetate hydrolysis for the differentiation of campylobacters. *J Clin Microbiol* 1990; 28:1482-3.
4. Popovic-Uroic T, Patton CM, Nicholson MA, Kiehlbauch JA. Evaluation of the indoxyl acetate hydrolysis test for the rapid differentiation of *Campylobacter*, *Helicobacter*, and *Wolinella* species. *J Clin Microbiol* 1990; 28:2335-9.
5. Murray, P.R., E. Baron, M. Pfaller, F. Tenover, R. Tenover. *Manual of Clinical Microbiology*. 7th ed. Washington: ASM, 1999.

Original: August 2005

Revised / Revisited: October 2014