

**ACETAMIDE HYDROLYSIS (ACM)**

REF No. 55721

Test for demonstration of the ability of bacterial strains to hydrolyse acetamide. Mainly used in differentiation of non-fermenting gram-negative rods.

**Procedure**

Prepare a dense bacterial suspension (at least McFarland No. 4) of the strain to be tested in 0.25 ml saline in a tube. Add one Acetamide Hydrolysis Diagnostic Tablet and close the tube.

Incubate at 35-37 °C for 18-24 hours - some positive reactions may be recorded already after 4-6 hours.

**Reading of the tests**

Positive reaction: **Red**  
 Negative reaction: Yellow, orange

**Results**

Acetamide hydrolysis is useful in the differentiation within the **fluorescent** group of Pseudomonas:

	<b>ACM</b>
<i>Pseudomonas aeruginosa</i>	+
<i>Pseudomonas fluorescens</i>	0 <sup>+</sup>
<i>Pseudomonas putida</i>	0

For the differentiation of *Comamonas acidovorans* (+) from *Comamonas testosteroni* (0). Most strains of *Burkholderia cepacia* are positive and most strains of *St. maltophilia* are negative.

Most strains of Alcaligenes (*faecalis*, *denitrificans* and *Achr. xylosoxidans*) are positive, while other non-fermenters are negative.

**Non-fermenters**

<b>ACM positive</b>	<b>ACM negative</b>
<i>Ps. aeruginosa</i>	<i>Ps. fluorescens</i>
<i>Com. acidovorans</i>	<i>Ps. putida</i>
<i>Burkh. cepacia</i>	<i>Com. testosteroni</i>
<i>Alc. faecalis</i>	<i>Sten. maltophilia</i>
<i>Alc. denitrificans</i>	
<i>Achr. xylosoxidans</i>	

**Quality Control**

<b>DIATABS</b> (Active ingredients)	<b>Positive</b>	<b>Negative</b>
<b>Acetamide hydrolysis</b> (Acetamide)	<i>Ps. aeruginosa</i> ATCC 27853	<i>E. coli</i> ATCC 25922

**References**

1) Palleroni, N.J.: Pseudomonas in "Bergey's Manual of Systematic Bacteriology", Vol. 1, 141-199, 1984.