

AmpC

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ABSTRACT

The detection of inducible AmpC β -lactamases in (47) clinical isolates of gram negative bacilli, isolated from lower respiratory tract infections, was performed using disc induction method. The results showed that 39 (83%) isolates contain these enzymes with variable rates according to the bacterial species tested. The research indicates the efficiency and simplicity of this method in detecting inducible β -lactamases, and recommends using it in hospitals and laboratories to detect strains with inducible enzymes.

AmpC

-

(47)

(%83) 39

... AmpC -

(1) - AmpC -
(C)
(3,2) -
-

Monobactams
AmpC (3) Carbapenems
Extended-spectrum -
Cephameycins β -lactamases (ESBLs)
(4,3) -
AmpC

Enterobacter

Pseudomonas aeruginosa *Serratia spp.* *Citrobacter spp.* *spp.*

Inducible expression

ampD ampG ampR

(6,5) *ampC* *ampE*

Inducers

Escherichia coli Klebsiella pneumoniae

(8,7,4)

Cephameycins

Cefoxitin

-

AmpC

(47)

/
(1) .(10,9)

:(1)

26	<i>Pseudomonas aeruginosa</i>
8	<i>Enterobacter aerogenes</i>
5	<i>Enterobacter cloacae</i>
8	<i>Serratia marcescens</i>
47	

AmpC

Oxoid

-

(0.5)

Cefoxitin .(12,11)

Cefotaxime Ceftriaxone Ceftazidime :

(25)

Ceftizoxime Cefoperazone

.(14,13)

(18-16)

° (35)

Cefoxitin

(4)

.(16,15)

AmpC

AmpC

(39)

(47)

. (%83)

(%100) *Ent.aerogenes**S.marcescens Ent.cloacae Ps.aeruginosa*

.(1)

(2)

(%75)

(%80)

(%80.8)

AmpC

Cefoxitin

.(14,13,1)

(15) Sanders&Sanders

-

Cefamandole

-

Piperacillin

Cefotaxime

Carbencillin

Cefuroxime

(13) Sanders et al.

Ampicillin

Moxalactam

Cefotaxime

Cefsulidin

Cephalothin

Cephalexin

Mezlocillin

.Thienamycin Mecillinam

AmpC

:(2)

(%)		
(80.8) 21	26	<i>Pseudomonas aeruginosa</i>
(100) 8	8	<i>Enterobacter aerogenes</i>
(80) 4	5	<i>Enterobacter cloacae</i>
(75) 6	8	<i>Serratia marcescens</i>
(83) 39	47	



AmpC :(1)

Cefotaxime Ceftriaxone Cefprozime :
 . Cefoxitin Cefoperazone Ceftazidime

AmpC Cefoxitin

-
 Cefoxitin
 .Cefoxitin

Cefoxitin
 (15)
 Cefoxitin

AmpC Cefoxitin

)

.(13)

Cefoxitin

(
 Cefoxitin

-

Cefoxitin Ampicillin

Ceftazidime Ceftriaxone

Cefamandole

(17) Goering et al.

-

*Ent.cloacae**Serratia spp. Enterobacter spp. Ps.aeruginosa*

-

(%100)

.(18) Multiplex PCR

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