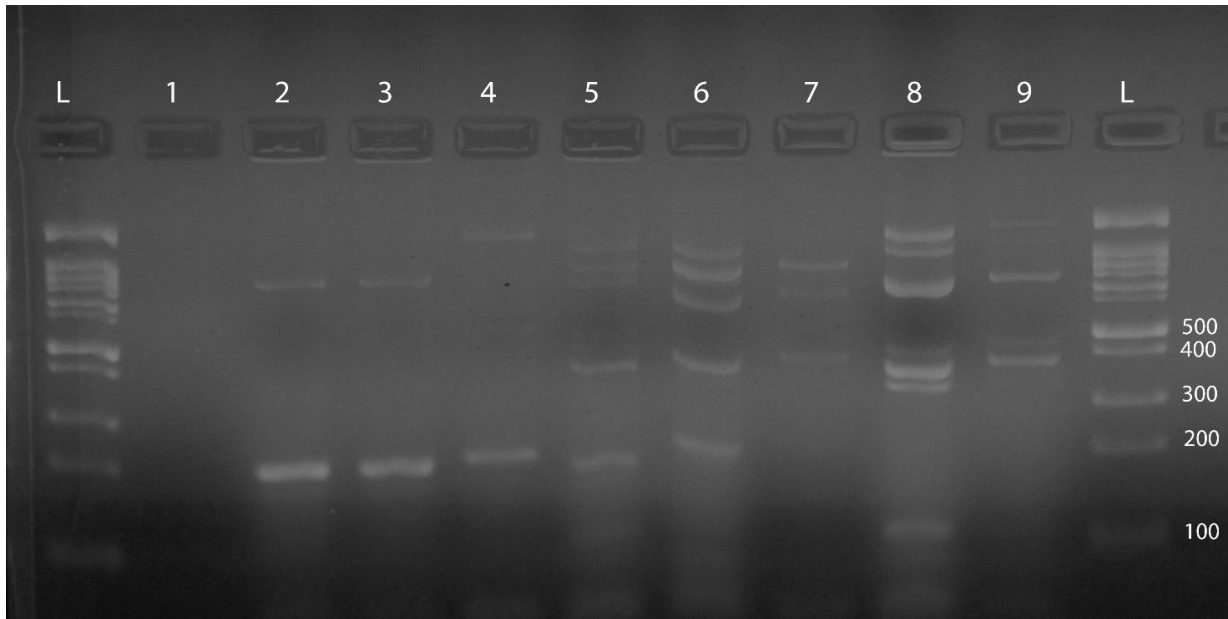


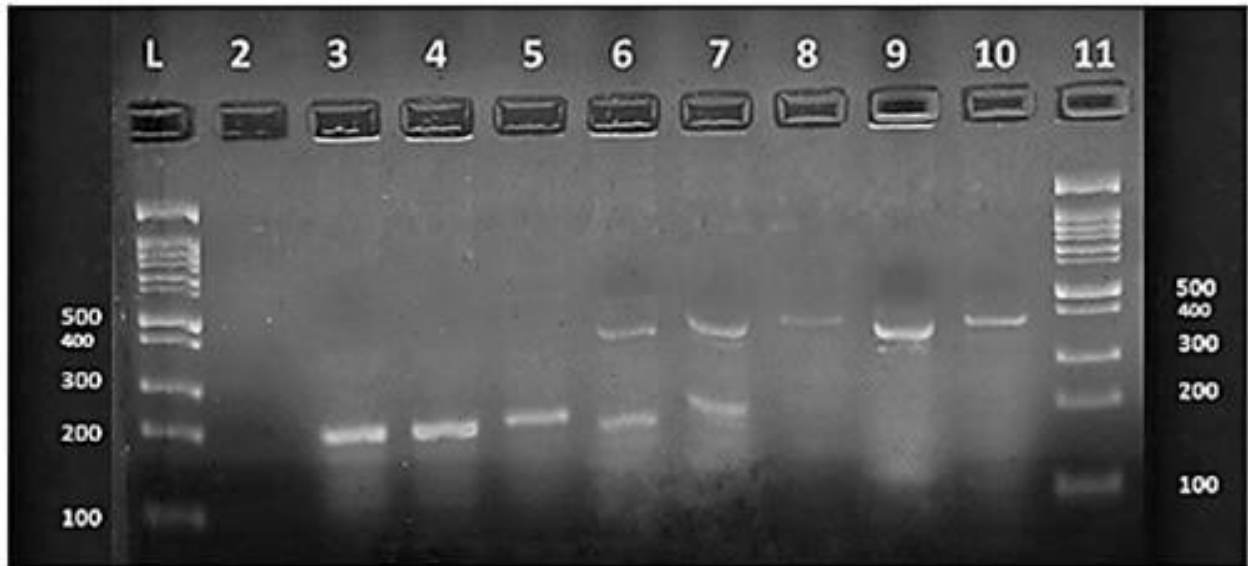
1



2

3 Detection of carbapenemase genes IMP, and VIM in carbapenemase-producing Gram-negative bacilli isolates,
4 using multiplex PCR (**Original image**)

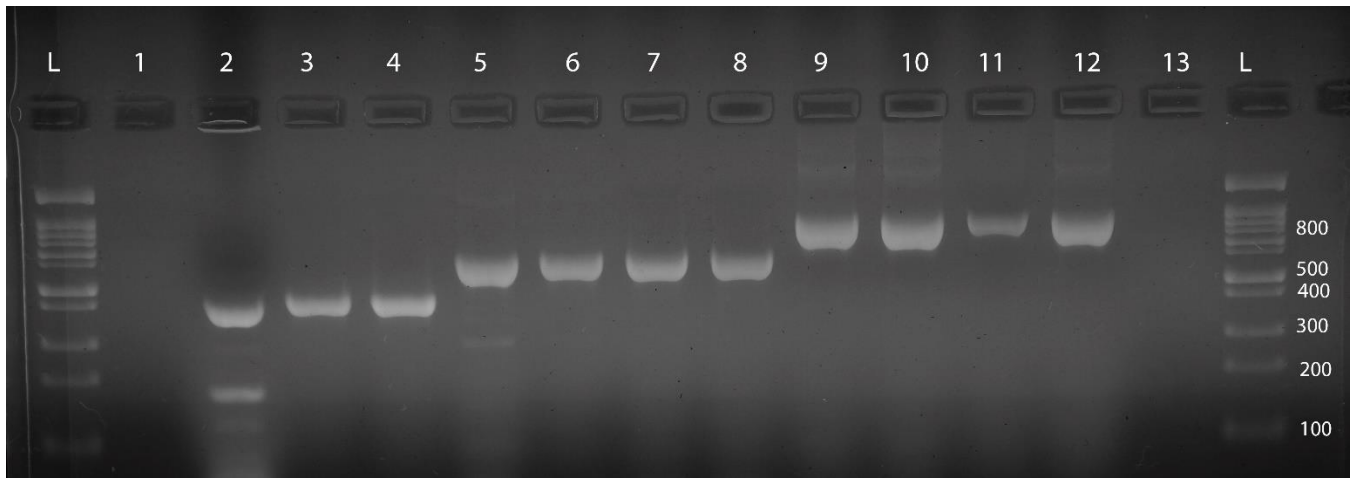
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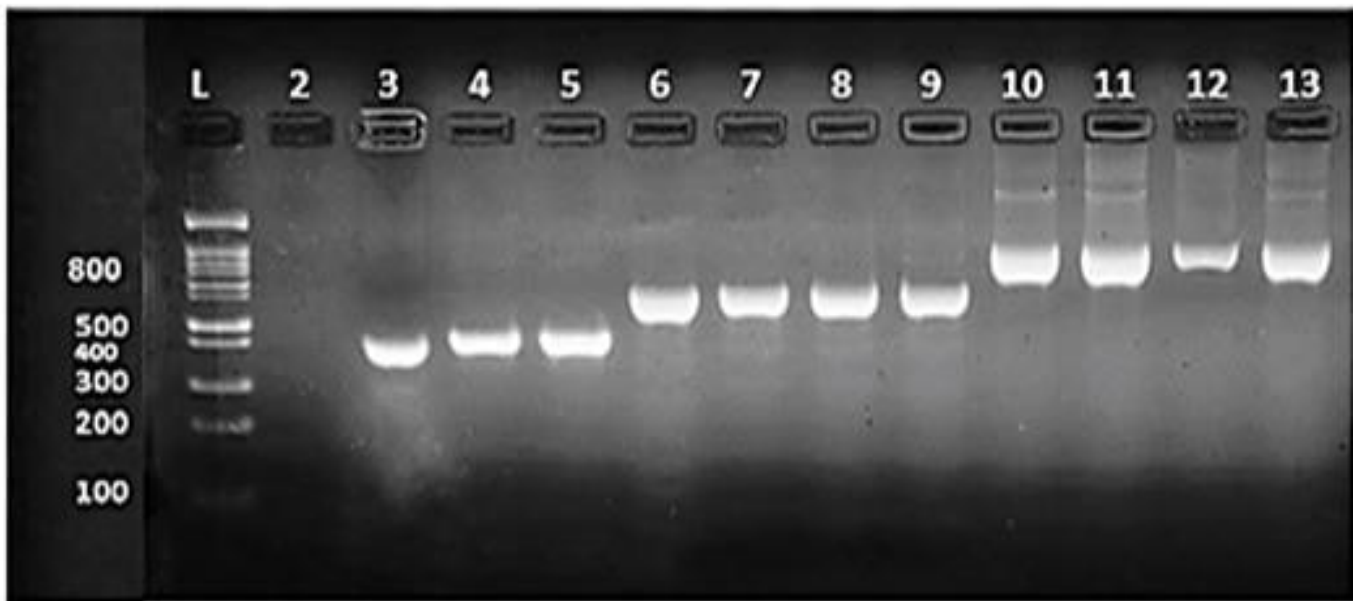
8 **Fig 2.1.** Detection of carbapenemase genes IMP, and VIM in carbapenemase-producing Gram-negative
9 bacilli isolates, using multiplex PCR. Lanes 3–5 represent the positive IMP carbapenemase gene, Lanes
10 8–10 represent the positive VIM carbapenemase gene, Lanes 6 and 7 represent co-expression of IMP
11 and VIM genes. The molecular size of the IMP and VIM genes are 232 and 390 bp respectively. Lane 1
12 and 11 are a 1-kb DNA ladder. Lane 2 corresponds to the negative control.



13

14 Detection of the carbapenemase genes OXA, NDM, and KPC in carbapenemase-producing Gram-negative bacilli
 15 isolates, using singleplex PCR (Original image)

16



17

18 **Fig 2.2.** Detection of the carbapenemase genes OXA, NDM, and KPC in carbapenemase-producing Gram-
 19 negative bacilli isolates, using singleplex PCR. Lanes 3–5 represent the positive OXA-48 gene, Lanes 6–9
 20 represent the positive NDM gene, and Lanes 10–13 represent the positive KPC gene. Lane 1 is a 1-kb DNA ladder.
 21 Lane 2 corresponds to the negative control. The molecular size of the tested *bla*_{OXA-48}, *bla*_{NDM}, and *bla*_{KPC}
 22 carbapenemase genes are 438, 621 and 798 bp respectively.