

Q: Choose the correct answer from each of the following statements:

(Rispondere alle domande scegliendo (sottolineare) la risposta corretta)

1. The CRISPR-Cas9 have been found primitively in *E. coli* and in archaea as immune system toward terminating invader DNA, the CRISPR-Cas9 stands for:
A) Clustered Regulatory Interspread Palindromic Repeats
B) Clustered Regulatory Interspread Protein Repeats
C) Clustered Repeated Interspread Palindromic Repeats
2. In designing Primers, both Forward and Reverse primers must have:
A) Similar or same T_m B) Same Length C) Similar Targets
3. The main mix of a standard Real Time PCR Reaction is different from a normal (Conventional) PCR reaction by containing:
A) Taq DNA polymerase B) dNTPs C) Fluorescent Probe or DNA-intercalating dye
4. In the Probe-based Real Time PCR assay, a new DNA copy formation corresponds to the:
A) hydrolysis of one probe molecule B) annealing of the Primer pairs C) hxdrolysis of the Forard or Reverse Primer
5. In the normal PCR assay, the only variable step is the:
A) Denaturation B) Annealing of the Primer pairs C) Extension of Primers
6. Too short primer length in PCR will result in:
A) formation of secondary structures B) formation of non-specific amplification
C) formation of Hairpin dimers
7. The ddPCR is different from the standard Real Time PCR Reaction in:
A) does Not needs Standard Curves B) does Not needs Primers C) does Not needs Probes or DNA-binding dyes
8. The ddPCR uses droplet technology to partition a 20ul PCR reaction into:
A) 2.000 of independent droplets B) 20.000 of independent droplets C) 10.000 of independent droplets
9. The standards or normal Polymerase Chain Reaction (PCR) is an:
A) End Point reaction B) Non-End Point reaction C) Real Time results visibility
10. The CRISPR-Cas9 is created by the interaction of two critical elements, the Cas9 nuclease and:
A) the Palindromic repeates. B) the Invador Viral DNA. C) the appropriate gRNA.

Best wishes....

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