

What is polymerase chain reaction (PCR)?

The **cobas**[®] Liat PCR System utilizes polymerase chain reaction (PCR), which is a recognized gold standard for many diagnostic assays. During each test, several billion copies of a specific section of nucleic acid are created via amplification.

1 Denaturation

The sample is heated, which separates the nucleic acid strands.



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4 Amplification

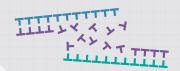
Repeat the process 30 to 40 times. More than 1 billion copies can be made of the original nucleic acid segment.



How does PCR work?

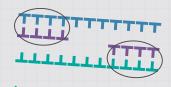
3 Extension

Nucleotides are added, based on the template strand's sequence, to the annealed primers. This creates a new strand of DNA complementary to each of the single template strands.



2 Annealing

Primers (short pieces of synthetic nucleic acid) bind – or anneal – only to sequences on either side of the target nucleic acid region.





Why the cobas[®] Liat PCR System?



Traditional methods of antigen detection for Influenza A/B, RSV and Group A Strep utilize antibodies to directly detect the pathogen present in the sample, where PCR amplifies the original target from a few copies to a few billion copies. This increases the sensitivity of detection as well as the specificity and reliability of the result because each PCR test targets a pathogen-specific nucleic acid sequence.

Learn more at cobasLiat.roche.com

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