

Product Information	
AccuStart™ Taq DNA Polymerase	
Part Number	95061-250
Number of Reactions	250 reactions
Reaction Size	25 µL
Storage Temperature	-25°C to -15°C
Lot Number	026300
Reference Number	21270, 015078, 110717
Expiration Date	02/29/2020

Product Description:

AccuStart Taq DNA polymerase is a recombinant Taq DNA polymerase preparation that contains monoclonal antibodies that bind to the polymerase and keep it inactive before PCR thermal cycling. Upon heat activation (1 minute at 94°C), the antibodies denature irreversibly, releasing fully active Taq DNA polymerase. Non-specific extension of primers at low temperatures is a common cause of artifacts and poor sensitivity in PCR. The AccuStart automatic hot-start enables specific and efficient primer extension in the PCR process with the added convenience of room temperature reaction assembly.

Activated AccuStart Taq DNA polymerase possesses 5' to 3' DNA polymerase activity and a double-strand specific 5' to 3' exonuclease. The polymerase does not have 3'-exonuclease activity and is free of any contaminating endo- or exonuclease activities. One unit is defined as the amount of enzyme that will incorporate 10nmol of dNTP into acid-insoluble material in 30 minutes at 74°C.

Component Part Numbers:

84025 AccuStart Taq 0.05mL

84028 10X PCR Buffer 1.25mL

84030 50mM MgCl₂ 1.25mL

Product Specifications				
95061				
Assay	4.1KB PCR Functional Assay	(IL1-β) from Human Genomic DNA qPCR Functional Assay	DNase	RNase
Result	Pass	Pass	Pass	Pass

Quality Control Analysis and Specifications:

Nuclease Assay:

DNase: DNase activity must be below the detectable limits of 100 pg DNase I equivalent as assayed using a fluorogenic substrate following a 1 hour incubation at 37°C with each kit component at 1X concentration.

RNase: RNase activity must be below the detectable limits of 1 pg RNase A equivalent as assayed using a fluorogenic substrate following a 1 hour incubation at 37°C with each kit component at 1X concentration.

4.1KB PCR Functional Assay: Negative control must be free of visible product with a single band at ~4.1Kb visible from 35 cycles of PCR using 20ng human genomic DNA.

(IL1-β) from Human Genomic DNA qPCR Functional Assay: Must have detection of IL1-β from 33ng to 33pg (1 x 10⁴ to 10 copies); Correlation of Determination (R²) ≥ 0.990 from Ct standard curve analysis; Slope from Ct standard curve analysis between -3.20 and -3.65

Limitations of Use

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