

HIFI Dna polymerase Protein, Thermococcus kodakarensis

Cat. No.:	HY-P78949
Synonyms:	
Species:	Others
Source:	E. coli
Accession:	P77933
Gene ID:	3233723
Molecular Weight:	Approximately 90 kDa

PROPERTIES

AA Sequence

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MASA I L D T D Y   I T E D G K P V I R   I F K K E N G E F K   I E Y D R T F E P Y
FYA L L K D D S A   I E E V K K I T A E   R H G T V V T V K R   V E K V Q K K F L G
R P V E V W K L Y F   T H P Q D V P A I R   D K I R E H P A V I   D I Y E Y D I P F A
K R Y L I D K G L V   P M E G D E E L K M   L A F D I E T L Y H   E G E E F A E G P I
L M I S Y A D E E G   A R V I T W K N V D   L P Y V D V V S T E   R E M I K R F L R V
V K E K D P D V L I   T Y N G D N F D F A   Y L K K R C E K L G   I N F A L G R D G S
E P K I Q R M G D R   F A V E V K G R I H   F D L Y P V I R R T   I N L P T Y T L E A
V Y E A V F G Q P K   E K V Y A E E I T T   A W E T G E N L E R   V A R Y S M E D A K
V T Y E L G K E F L   P M E A Q L S R L V   G Q P L W D V S R S   S T G N L V E W F L
L R K A Y E R N E V   A P N K P S E E E Y   Q R R L R E S Y T G   G F V K E P E K G L
W E N I V Y L D F R   A L Y P S I I I T H   N V S P D T L N L E   G C K N Y D I A P Q
V G H K F C K D I P   G F I P S L L G H L   L E E R Q K I K T K   M K E T Q D P I E K
I L L D Y R Q K A I   K L L A N S F Y G Y   Y G Y A K A R W Y C   K E C A E S V T A W
G R K Y I E L V W K   E L E E K F G F K V   L Y I D T D G L Y A   T I P G G E S E E I
K K K A L E F L K Y   I N A K L P G A L E   L E Y E G F Y K R G   F F V T K K K Y A V
I D E E G K I T T R   G L E I V R R D W S   E I A K E T Q A R V   L E A L L K D G D V
E K A V R I V K E V   T E K L S K Y E V P   P E K L V I H E Q I   T R D L K D Y K A T
G P H V A V A K R L   A A R G V K I R P G   T V I S Y I V L K G   S G R I G D R A I P
F D E F D P T K H K   Y D A E Y Y I E N Q   V L P A V E R I L R   A F G Y R K E D L R
Y Q K T R Q V G L S   A W L K P K G T L E

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Biological Activity

The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.

Appearance

Solution.

Reconstitution

N/A.

Storage & Stability

Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.

Shipping

Shipping with dry ice.

DESCRIPTION

Background

HIFI DNA polymerase is characterized by its exceptional processivity, rapid polymerization rate, and remarkable fidelity in synthesizing DNA. Beyond its polymerase activity, it also possesses 3' to 5' exonuclease activity. Notably, HIFI DNA polymerase is associated with intein-encoded endonucleases, suggesting a potential role in intein mobility through site-specific recombination initiated by endonuclease cleavage at the 'homing site' in genes lacking the intein. In *E. coli*, PI-Pkol recognizes the minimal sequence 5'-GATTTTAGATCCCTGTACC-3' and cleaves after T-10, while PI-PkolII recognizes 5'-CAGCTACTACGGTTAC-3' and cleaves after C-10. The enzyme's efficacy, particularly in high intracellular K(+) environments, emphasizes its potential utility and activity in vivo.

Caution: Product has not been fully validated for medical applications. For research use only.

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