

## DNA polymerase IV Protein, Colwellia psychrerythraea, Recombinant

### General Information

Synonyms: dinB;DNA polymerase IV;Pol IV

Protein Construction: 1-352 aa

Species: Colwellia psychrerythraea

Expression Host: E. coli

Accession: Q487H6

Molecular Weight: 39.3 kDa (predicted)

MGNQKKIIHIDMDCFYAAIEMRDFPEYQNIPLAVGGDGPRSVLCTSNYQARQFGVRSAMPAIKAKQLCPHLKI  
VHGRMDVYKETSKNIREIFSRYTDLIEPLSLDEAYLDVTDATMCQGSATLIAERIRADIFNELNLTA SAGIAPNKF  
AA Sequence: LAKIASDENKPNGQCVITPDKVANFVEQLSLKKIPGIGPKTFEKLNRHGYVTCADVRSNIRALQNI  
VGFANS  
LYLKSHGVDNRDLEVSRQRKSLAIETTLAHDISTQDECKLVIDSLYQKLLTRLAPHSNREIIRQGVKLFDFNQ  
TTVETQSNECQALFISLLSKAYSRSNKRGVRLVGLTLGFADSPGESQQLSLSL

### QC Testing

Biological Activity: Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.

Purity: > 90% as determined by SDS-PAGE.

Endotoxin: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: Tris-based buffer, 50% glycerol

### Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Poorly processive, error-prone DNA polymerase involved in untargeted mutagenesis. Copies undamaged DNA at stalled replication forks, which arise in vivo from mismatched or misaligned primer ends. These misaligned primers can be extended by PolIV. Exhibits no 3'-5' exonuclease (proofreading) activity. May be involved in

translesional synthesis, in conjunction with the beta clamp from PolIII.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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