

Catalog #:	Package Size	Concentration
3552	50 µl (100 µg)	2 µg/µl
3555	250 µl (500 µg)	2 µg/µl

Description

T4 DNA helicase (gp41) is a hexameric, DnaB-like helicase that unwinds DNA with 5' to 3' polarity (1-3). Helicase activity has been shown to be stimulated upon association with gp61 or in coupled assays with the T4 DNA polymerase gp43 (4, 5). T4 replication helicase (gp41) and polymerase (gp43) can carry out ATP-dependent strand displacement DNA synthesis at physiological rates with high processivity in the absence of other T4 DNA replication proteins.

Protein Purity

The physical purity of this enzyme is ≥98% as assessed by SDS-PAGE with Coomassie® blue staining (Fig. 1).

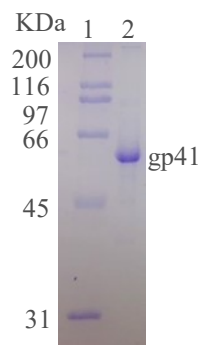


Fig. 1: Lane 1, Protein marker and lane 2, gp41.

Product Source

E. coli BL21 (DE3) strain expressing T4 gp41 gene.

Product Includes

- gp41 protein
- 10X gp41 Reaction Buffer

1x gp41 reaction buffer composition

20 mM Tris-acetate
 100 mM Potassium acetate
 10 mM Magnesium acetate
 1 mM DTT
 pH 7.8 @ 25°C

Storage Buffer

50 mM Tris-HCl
 50 mM KCl
 1 mM DTT
 0.1 mM EDTA
 50% Glycerol
 pH 7.5 @ 25°C

Storage Temperature

-20°C

Quality Control assays

gp41 is free from detectable nuclease activities.

References

1. Dong F, Gogol EP, von Hippel PH. *J Biol Chem.* 1995;270:7462–7473
2. Patel SS, Picha KM. *Annu Rev Biochem.* 2000;69: 651–697
3. Venkatesan M, Silver LL, Nossal NG. *J Biol Chem.* 1982;257: 12426–12434
4. Schrock RD, Alberts B. *J Biol Chem.* 1996;271:16678–16682.
5. Richardson RW, Nossal NG. *J Biol Chem.* 1989; 264:4725–4731.