

gp32

Product Number:RPA006

Shipping and Storage

1. Storage conditions: Store at -20°C to avoid repeated freezing and thawing.
2. Transportation conditions: Low temperature ice packs.

Description

Gp32 protein (ssDNA binding protein), also known as T4 gp32 protein or T4 phage gp32 protein, is a single stranded DNA (ssDNA) binding protein encoded by gene 32 of the T4 phage genome. This protein is essential for T4 phage DNA replication and repair, and can be used for recombinase polymerase amplification (RPA). When observing the DNA structure inside cells using an electron microscope, this protein is also widely used to stabilize and label single stranded DNA regions. In addition, T4 gp32 has been reported to promote restriction endonuclease and T4 DNA polymerase activity, improve reverse transcriptase efficiency during RT-PCR, and increase PCR product yield.

Our company provides recombinant expression of gp32 protein with a molecular weight of ~35 KDa, high activity, and good stability. We constructed an efficient RPA isothermal amplification system using self-produced gp32 protein (as shown in the figure below).



A RPA isothermal amplification system was constructed using self-produced recombinant proteins such as UvsX, UvsY, gp32, Bsu, etc.
M is a marker, and 1, 2, 3, and 4 are different RPA constant temperature amplification products.

Application

Stabilize or label ssDNA; Increase the production of reverse transcription products during RT-PCR process; Enhance the synthesis of DNA in vitro; Used together with T4 DNA polymerase and T4 DNA ligase for site-specific mutation experiments; When amplifying bacterial or fungal genomes from samples containing humic acid, such as soil, the yield and specificity of PCR products can be increased; Promote the digestion reaction of restriction endonucleases.

Specification

1. Dosage form: liquid or freeze-dried powder.
2. Storage buffer: 20mM Tris HCl, 100mM NaCl, 0.5mM DTT, 1mM EDTA, pH8.0
3. Molecular weight: Approximately 35 KDa (detected by SDS-PAGE)
4. Purity: $\geq 90\%$ (SDS-PAGE detection)
5. Thermal deactivation: 65°C, 20min.

Note

This reagent is only used for research and development or production, and is strictly prohibited from being used in human or animal experiments.

For Research Use Only