



Gene to Protein Pvt. Ltd.

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www.genetoprotein.com

info@genetoprotein.com

800 GENOME, 800 GENETIC



pBR322 Plasmid DNA

Cat # P03

Pack Size: 5 µg

Storage: -20°C.

It is stable for at least 6 months under these storage conditions. Avoid repeated freeze-thaw cycles.

Kit Content:

S.No	Plasmid	Concentration
1	pBR322	5µg (50µL-100ng/µl)

Introduction

The pBR322 plasmid DNA is a double-stranded circular DNA molecule that contains genes for ampicillin and tetracycline resistance. The plasmid is approximately 4361 base pair in size and is commonly used in molecular biology research as a cloning vector.

Features

- High purity: The pBR322 plasmid DNA is purified using a proprietary chromatography method to ensure high purity and quality.
- High yield: The plasmid DNA is isolated from a high copy number *E. coli* strain to ensure high yield.
- Ready-to-use: The plasmid DNA is supplied in a TE buffer (10 mM Tris, 1 mM EDTA, pH 8.0) and is ready-to-use for various molecular biology applications.

Applications

- Cloning: The pBR322 plasmid DNA is widely used as a cloning vector in molecular biology research due to its small size and the presence of multiple restriction enzyme sites.
- Transformation: The plasmid DNA can be used for transformation of competent *E. coli* cells for cloning studies.
- Marker: The plasmid DNA can be used as a molecular weight marker in agarose gel electrophoresis.

Quality Control:

The quality of the pBR322 plasmid DNA is tested on a lot-to-lot basis to ensure consistent product quality. The plasmid DNA is analyzed by agarose gel electrophoresis and quantified by Nanodrop and Digested with restriction enzymes.

Protocol for pBR322 Plasmid DNA upon Arrival:

1. Thaw the DNA on ice or at room temperature, but avoid repeated freeze-thaw cycles to prevent damage to the DNA.
2. Before use, gently vortex the DNA to ensure it is fully resuspended.
3. Verify the concentration and purity of the DNA by spectrophotometry and/or gel electrophoresis before use.
4. Use sterile techniques and proper biosafety precautions when handling the DNA to avoid contamination or exposure to hazardous materials.
5. Store any unused DNA at -20°C to -80°C for future use.

Note:

- This product is for research use only and is not intended for human or animal diagnostic or therapeutic uses.
- Handling of plasmid DNA should be performed in a manner consistent with biosafety level 1 or 2 guidelines, as appropriate.
- The price of pBR322 Plasmid DNA is solely for the maintenance and distribution of the plasmid for research purposes only. Gene to protein Pvt. Ltd does not sell or make any profit from the use of this product.

