

Technical Datasheet

Product Name: NexGen Proteinase K

Catalogue Number: BPBOI029

Enzyme Activity: >30U/mg

Introduction:

NexGen Proteinase K is a highly efficient serine protease that exhibits broad substrate specificity. It is commonly used for the digestion of proteins, including those resistant to other proteases, and is especially effective in removing nucleases from DNA and RNA preparations. This enzyme works over a wide range of temperatures and pH levels, making it versatile for various molecular biology applications.

Product Description:

NexGen Proteinase K is a robust enzyme that can degrade a wide variety of proteins, including native proteins, during nucleic acid purification processes. It is active in the presence of SDS, urea, and other detergents, allowing it to function in complex lysis buffers. NexGen Proteinase K is available in both liquid and lyophilized forms, ensuring compatibility with different experimental needs.

Applications:

BioPioneer's NexGen Proteinase K is suitable for a broad range of applications:

- **DNA/RNA Purification:** Efficiently removes proteins during the isolation of nucleic acids from tissue, cell cultures, and other biological materials.
- **Enzyme Digestion:** Useful for digesting protein contaminants in enzyme preparations.
- **Cell Lysis:** Facilitates the complete lysis of cells and tissues in various buffer systems.
- **Protein Analysis:** Effective in preparing samples for SDS-PAGE and other protein analytical techniques.

Composition:

BioPioneer's NexGen Proteinase K is provided as a lyophilized solution. The enzyme is stable over a pH range of 4.0-12.0 and is active in the presence of 0.5-1% SDS.

Preparation Instructions:

For optimal activity, reconstitute the lyophilized NexGen Proteinase K in [e.g., sterile distilled water or specific buffer]. Store the solution at -20°C and avoid repeated freeze-thaw cycles. For liquid forms, use directly as supplied or dilute according to specific protocol requirements.

Storage Conditions:

Store NexGen Proteinase K at -20°C. The enzyme should be handled with care to avoid contamination. Once reconstituted, aliquot and store at -20°C to maintain stability. Avoid repeated freeze-thaw cycles.

Warning and Precautions:

Not intended for medicinal use. Review the Safety Data Sheet (SDS) thoroughly before starting the protocol. Always wear protective gloves, clothing, eye protection, and face protection. Adhere to good clinical laboratory practices when handling samples, and follow standard precautions as outlined in established guidelines. For detailed safety procedures, consult the product's Safety Data Sheet.

Safety Information:

The NexGen Proteinase K is for laboratory use only and should not be used for pharmaceutical, household, or non-laboratory purposes. NexGen Proteinase K is classified as a hazardous substance due to its potential to cause respiratory, skin, and eye irritation. Observe all laboratory safety protocols, including wearing gloves and safety goggles. For comprehensive safety details, refer to the Safety Data Sheet (SDS).

Technical Assistance:

At BioPioneer, we are committed to providing top-notch technical support and ensuring its accessibility. For any technical assistance, please email us at qc@biopioneer.in.