Quick-Precip™ Plus Solution

Product	Catalog #	Size
Quick-Precip Plus Solution	70437	1 ml
Quick-Precip Plus Solution	72641	6 ml

Description

Quick-Precip Plus Solution is a proprietary, biologically inert carrier dissolved in water containing sufficient salt [10 mM Tris-HCl (pH 8.0 at 25°C), 1 mM EDTA and 5 M NaCl] for the rapid precipitation of DNA, RNA and oligomers >16 bases. Precipitation of DNA by the Quick-Precip Plus Solution is moderately volume dependent. It is not affected by the presence of additives frequently found in enzymatic reactions (e.g. polyethylene glycol, glycerol) or residual organic solvents used for the extraction of proteins.

Because Quick-Precip Plus Solution is biologically inert, DNA or RNA precipitated with the Quick-Precip Plus Solution can be used for hybridization, cloning, preparation of libraries (including eukaryotic expression libraries) and DNA amplification with the polymerase chain reaction. It is particularly useful when >90% recovery of small quantities of nucleic acid polymers is desired. Rapid precipitation of DNA with this biologically inert carrier can facilitate the optimization of yields from ligation and transformation reactions used in cloning and library preparation.

Component	70437	72641
Quick-Precip Plus Solution	1 ml (PN 4050063)	6 ml (PN 4050047)

Equipment and Materials Required

1. Microcentrifuge capable of reaching ≥10,000 *x g*.
2. Ethanol

Storage and Stability Conditions

Store at +4°C. Product is stable for 6 months when stored under these conditions. For longer storage, keep at -20°C. DO NOT store at room temperature. Product performance will degrade with extended storage at room temperature.

Quality Control

Tested for functionality by evaluation of DNA recovery.

Recommended Protocol

Remove excess protein by extraction with phenol or Advamax™ Beads (Cat. No. 11393) before using Quick-Precip Plus Solution.

For DNA

1. Addition of Quick-Precip Plus Solution:
   - Use 10 µl for volumes ≤100 µl.
   - Use 20 µl for volumes of 100–400 µl.
   - Use 30 µl for volumes >400 µl.
2. Add 2 volumes of ethanol.
3. Centrifuge 2 minutes, maximum speed at room temperature[1,2].
   - For volumes >400 µl, spin for 3 minutes
4. Decant fluid and rinse pellet with 70% ethanol.
5. Remove residual alcohol with pipet and/or cotton swab before dissolving pellet in buffer of choice.
6. When resuspending the precipitated DNA, it may be necessary to rinse the sides of the tube to ensure complete recovery. A vigorous spin on a vortex mixer is usually sufficient.

For Oligomers

1. Add 0.1 volumes of Quick-Precip Plus Solution.
2. Add 3 volumes of ethanol.
3. Centrifuge 3 minutes, maximum speed at room temperature[1,2].
   - For volumes >400 µl, spin for 3 minutes
4. Vortex at full speed on a vortex mixer for 5 seconds and centrifuge again for 30 seconds.
5. Decant fluid and rinse tube with 70% ethanol.
6. Remove residual alcohol with pipet and/or cotton swab before dissolving pellet in buffer of choice.

Notes

1. The length of the spin is dependent upon the volume of solution. The above precipitation protocol has been optimized for microcentrifuge-based applications with *x g* forces in excess of 12,000. Most fixed angle microcentrifuges routinely achieve these *x g* forces.
2. DNA preparations that are contaminated with protein (most notably minipreps) have a tendency to form a film rather than a pellet. If there is a chance that your sample contains protein, vortex the sample to displace precipitate from the side or rinse the sides of tube when resuspending the pellet. Pellets formed with excessively protein-contaminated material are difficult to solubilize.

Warning: This product is intended for **research use only**. It is not to be used for diagnostic purposes in humans or animals.