NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA

Instructions for Use

Release Date— 01.12.2019

Store at RT

REF

NGP001 100 ml

For research use only.
Not suitable for diagnostic use.
For professional use only.

Description

NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA, DNA and RNA Stabilization Solution is an aqueous tissue storage reagent that rapidly permeates most tissues to stabilize and protect DNA and RNA in fresh specimens. It eliminates the need to immediately process or freeze samples; the specimen can simply be submerged in NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA and stored for analysis at a later date. Samples in NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA can be stored for extended periods under conditions where DNA and RNA degradation would normally take place rapidly. Tissues can be stored indefinitely in NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA at –20° C or below. NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA can be used for DNA and RNA preservation with most tissues, cultured cells, bacteria, and yeast. It may not be effective in tissues that are poorly penetrated by the solution, such as waxy plant tissue and bone. NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA has been extensively tested with animal tissues, including brain, heart, kidney, spleen, liver, testis, skeletal muscle, fat, lung, and thymus. It has also been proven effective for DNA and RNA preservation in E. coli, Drosophila, tissue culture cells, white blood cells, and some plant tissues.

Storage and Stability

Store NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA at room temperature. If any precipitation of NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA is seen, heat it to 37°C and agitate to redissolve it.

Guidelines

- Use NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA with fresh tissue only; do not freze tissues before immersion in NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA.
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- Before immersion in NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA, cut large tissue samples to ≤ 0.4 cm in any single dimension.

- Place the fresh tissue in 5–15 volumes of NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA.

- Most samples in NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA can be stored at room temperature for 1 week without compromising RNA quality, or at –20°C or –80°C indefinitely.

- Do not freeze samples in NucleoGene Stabilizer Solution Tissue & Cell DNA / RNA immediately; store at 4°C overnight (to allow the solution to thoroughly penetrate the tissue), remove supernatant, then move to –20°C or –80°C for long-term storage.

Sample Type	Amount to be used	Usage
Animal Tissue	5–15 volumes	Section into smaller pieces.
Plant Tissue	5–15 volumes	Waxy tissues are stored after homogenization. All leaves should remain in solution.
Tissue Culture Cells	5–15 volumes	Pellet cells according to the protocols followed by your laboratory.
Bacteria	0.5–1.5 mL	Pellet up to 5 x 10^8 cells (centrifuge at 12,000 x g for 2 min). Remove supernatant and immediately resuspend the pellet.
Yeast	0.5–1.5 mL	Pellet up to 5 x 10^8 cells (centrifuge at 12,000 x g for 2 min). Remove supernatant and immediately resuspend the pellet.

Storage for Sample

Storage Temperature	Explanation
–80°C	Samples can be stored at –80°C indefinitely. To prepare samples for storage at –80°C, first incubate the samples in Stabilizer Solution overnight at 4°C to allow thorough penetration of the tissue, then transfer to –80°C.
–20°C	Samples can be stored at –20°C indefinitely. To prepare samples for storage at –20°C, first incubate the samples in Stabilizer Solution overnight at 4°C to allow thorough penetration of the tissue, then transfer to –20°C.
4°C	Most samples can be stored in Stabilizer Solution at 4°C for up to 1 month without significant RNA degradation.
25°C (room temperature)	Most samples can be stored at 25°C in Stabilizer Solution for up to 2 week without significant loss of RNA quality.
37°C	RNA isolated from samples stored at 37°C is intact after a 24 hour incubation, but is partially degraded after 5 days.

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