

# **NOYA-stable RNA**

Catalog number: N-1231 « Research Use Only »

### Overview

NOYA-Stable RNA is an aqueous, non-toxic tissue and cell storage reagent that stabilizes and protects cellular RNA in intact unfrozen tissue and cell samples. NOYA -Stable RNA eliminate the need to immediate process samples or to freeze samples in liquid nitrogen. NOYA -Stable RNA preserve RNA in tissue for up to 1day at 37°C, 1 week at 25°C and 1month at 4°C. Tissue can also be stored at -20°C long term.

NOYA -Stable RNA has been extensively tested on several tissues from vertebrate species, including brain, heart, kidney, spleen, liver, and testis. NOYA -Stable RNA is also effective to preserve *E.coli*.

#### Storage

Store NOYA -safe at room temperature. In the case of precipitation, warm the solution to 37°C and shake to re-dissolve it.

#### **Protocol**

- Use NOYA -Stable RNA with fresh tissue only. Do not freeze tissue before immersion in NOYA-Stable RNA.
- Before immersion in NOYA-Stable RNA, cut large tissue sample to 0.5 cm in any single dimension.
- Place the fresh tissue in 5-10 volume of NOYA-Stable RNA.
- Most samples in NOYA-Stable 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 sample in NOYA-Stable RNA immediately ;store at 4°C overnight ( to allow NOYA-Stable RNAto thoroughly penetrate the tissue ), remove supernatant , then move to -20°C or -80°C for long term storage . For tissue culture cells, don't remove the NOYA-Stable RNA, simply freeze the whole solution. Sample can be subsequently thawed at room temperature and refrozen without affecting the amount or the integrity of the recoverable RNA.
- Tissue Culture Cells: pellet cells according to standard laboratory protocols. Wash the cells with PBS or an equivalent buffer to remove culture media. After resuspending the cells, add 5-10 equivalent volume NOYA-Stable RNA to the cell suspension. No further rinsing of the cell pellet is necessary.
- Anti-Coagulated Blood: gently invert collection tube several times to mix blood sample. Add 300-500µl of anticoagulated blood to 1.3ml of NOYA-Stable RNA. Mix thoroughly. Sample can be stored in ambient temperature for up to 3 days and at -20°C for long term storage.

#### RNA Isolation from Material in NOYA-Stable RNA

#### **Glass fiber-based extraction:**

• Lysis from NOYA-Stable RNA treated sample often require more force to pass through glass—fiber filter than lysate from untreated samples. Therefore, it may be necessary to use centrifugation instead of vacuum pressure to pass lysate through glass-fiber filter

### **One-step disruption /extraction solution:**

- When using one-step RNA isolation product such as RNAsol, Trisol, ... on NOYA-Stable RNA to preserve sample, the aqueous phase will occasionally appear cloudy. If this occurs, simply continue the procedure, following the technical bulletin or manufacturer's instructions. Cloudiness of the aqueous phase does not affect the quantity or quality of the RNA.
- Tissues that have been stored at NOYA-Stable RNA should be removed from the storage solution with sterile forceps and submerged in RNA lysis solution. Tissue homogenization should be rapid once the tissue is in lysis /denaturation solution.
- Tissue stored in NOYA-Stable RNA develop a hard rubbery texture and may be more difficult to homogenize thoroughly than fresh tissue. Dicing the tissue into smaller pieces with a scalpel can expedite homogenization.
- Cell stored in NOYA-Stable RNA can either be removed by centrifugation or the RNA can be extracted from the mixture of cell and NOYA-Stable RNA.

#### **Notes**

- FOR RESEARCH USE ONLY NOT FOR HUMAN OR DIAGNOSTIC USE.
- Please observe General laboratory precaution and utilize safety while using this reagent.

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