



## **StableRNA Storage Solution (StableRNA)**

Catalog #MB6408-100, 100 mL

or

Catalog #MB6408-500, 500 mL

### **Introduction**

ScienCell StableRNA Storage Solution is an aqueous storage reagent for specimens which stabilizes and protects nucleic acids for later isolation. It eliminates the need for the immediate processing or freezing of fresh specimens (for example, animal tissues, body fluids, plant tissues without waxy coatings, mammalian cells, bacteria, and yeast). Samples in StableRNA Storage Solution may be stored at ambient temperatures for up to 7 days, or stored indefinitely at -20°C or below. StableRNA is compatible with all ScienCell purification kits, such as Viral RNA Isolation Kit (Cat #MB891) and DualPrep DNA/RNA Isolation Kit (Cat #MB6908).

### **Quality Control**

StableRNA components were verified for quality assurance.. The performance was tested using preserved RNA in plasma at 37°C for 7 days.

### **Product Use**

StableRNA is for research use only. It is not approved for human or animal use, or for application in clinical or *in vitro* diagnostic procedures.

### **Shipping and Storage**

Ambient temperature. If precipitation is seen, warm the solution to 37°C to dissolve any precipitates.

## Use of StableRNA Storage Solution:

### ***Important:***

*Only use StableRNA with fresh samples. Do not freeze tissues before submersion. Do not freeze samples in StableRNA immediately. If long-term storage is needed, allow solution to permeate tissue at 4°C overnight before transferring sample to -20°C or below.*

### **1. Place specimens in StableRNA as shown below:**

#### **a) Animal tissues**

Place fresh tissue (small organs or cut samples to 0.5-cm size) in 5-10x volumes of StableRNA.

#### **b) Body fluids**

Mix specimens in a 4:6 ratio (sample:solution) with StableRNA. For example, mix 40 µL specimen with 60 µL StableRNA.

#### **c) Plant tissues**

Submerge tissue with 5-10x volumes of StableRNA. If a waxy coating is present, disrupt the cuticle to allow the solution to permeate the plant tissue before submerging in solution.

#### **d) Cells**

Pellet cells and remove supernatant. Add 5-10x volume of StableRNA to cell pellet.

#### **e) Yeast Cells**

Pellet up to  $3 \times 10^8$  cells. Remove supernatant and resuspend with 0.5-1.0 mL of StableRNA. If long-term storage is required, incubate at room temperature for 1 hour. Re-pellet the cell. Remove supernatant and freeze immediately at -80°C.

### **2. Storage in StableRNA Storage Solution:**

- a) Samples may be stored in StableRNA Storage Solution for up to **7 days** at **room temperature** without significant RNA degradation.
- b) Samples may be stored in StableRNA Storage Solution for up to **1 month** at **4°C** without significant RNA degradation.

- c) Samples may be stored indefinitely at **-20°C or below**. Once mixed with StableRNA, body fluids may be stored at -20°C or below directly. Cell and tissue samples should be incubated in StableRNA at 4°C overnight before transfer to -20°C or below.

### **3. RNA isolation from samples stored in StableRNA:**

*NOTE: Small amounts of StableRNA does not affect RNA isolation.*

- a) **Animal or plant tissues** - Remove tissue from StableRNA solution. Immediately homogenize tissue once in lysis buffer and continue according to RNA isolation methods.
- b) **Cells** – Add an equal volume of ice-cold 1x PBS to cells in StableRNA (e.g., add 100 µL of ice-cold 1x PBS to 100 µL cells in StableRNA). Proceed directly to RNA isolation or pellet cells by centrifugation and proceed to RNA isolation accordingly.
- c) **Body fluids** – Proceed directly to RNA isolation.