

## RNA Liv™

<u>Product Name</u>	<u>Product Code</u>	<u>Kit Packing</u>
RNA Liv™	ML161-100ML	100 ml

**Introduction:** RNA Liv™ stabilizes and protects RNA in tissue samples, which eliminates the need of immediate processing or to freeze samples in liquid nitrogen for later processing. It is a single reagent that immediately inactivates RNases and stabilizes RNA within tissues or cells. RNA Liv™ stabilizes RNA for 1 day at 37°C, 1 week at 25°C, 1 month at 4°C, or at -20°C (up to 20 freeze-thaw cycles).

### Applications:

RNA Liv™ is ideal for:

- Protecting RNA integrity in tissues rich in RNases
- Collecting samples from different time points without having to process the samples from each time point immediately
- Archiving tissues for future microdissection
- Submerging animal cavities or organs to stabilize RNA during lengthy dissection procedures
- Collecting samples at locations (e.g. hospitals, field sites) where immediate RNA isolation is not possible
- Shipping samples on wet ice or even at room temperature if shipped overnight

### Properties:

Appearance	: Colorless solution
Clarity	: Clear and free of particles
Sterility	: Sterile; 0.22 µm filtered
DNase & RNase	: None detected
Bioburden	: None detected
Suitability Test	: This reagent has been tested and is suitable for use in various molecular biology applications.

**Storage and Shelf life:** Store RNase Stabilizer solution at room temperature (15-25°C) and is stable for 6 months from the date of manufacture. Storage of RNA Liv™ Reagent at lower temperatures may cause precipitation prior to use, preheat the reagent to 37°C with agitation, till the precipitate dissolves.

**NOTE:** RNA Liv™ Reagent is not suitable for stabilization of RNA in animal cells, whole blood, plasma, or serum. The reagent also cannot be used to stabilize RNA in adipose tissue due to the high abundance of fat (however, RNA stabilization of other fatty tissues such as brain is possible).

### RNA Stabilization in Tissues:

#### Procedure:

1. Determine the appropriate amount of tissue sample to be stabilized for RNA extraction.
2. To a collection tube (Nuclease free), add appropriate volume of RNA Liv™. For e.g. add 100 µl of RNA Liv™ for 10 mg of tissue.

**Table 1. Tissue Weights and Amount of RNA Liv™ Reagent to be added**

Mouse organ	Weight (mg)	Minimum amount of RNA Liv™ Reagent (ml)
Kidney	180–250	1.8–2.5
Spleen	100–160	1–1.6
Lung	190–210	1.9–2.1
Heart	100–170	1–1.7
Liver	1000–1800	10–18

3. Cut the weighed sample into pieces (if required) and place it in a tube containing RNA Liv™ solution.
4. Ensure that the tissue is completely submerged in reagent.
5. Store the tissue submerged in RNA Stabilization Reagent for up to 4 weeks at 2–8°C, up to 7 days at 15–25°C, or up to 1 day at 37°C.

**For long term Storage at -20°C:** Incubate the tissue overnight in the RNA Liv™ reagent at 2–8°C. Then transfer the tissue, in the reagent, to –20°C for storage.

**For long term Storage at -80°C:** Incubate the tissue overnight in the RNA Liv™ reagent at 2–8°C. Then remove the tissue from the reagent, and transfer it to –80°C for storage.

**NOTE:** Tissues stored in RNA Liv™ Reagent at –20°C may not freeze. The low temperature may cause the formation of crystals or a precipitate in the reagent. This will not affect subsequent RNA purification. There is no need to dissolve the precipitate.

**RNA stabilized tissues stored at –20°C or –80°C can be thawed at room temperature and frozen again for up to 20 freeze–thaw cycles without affecting RNA quality or yield.**

**For Transportation:** While transporting tissue samples in RNA Liv™ Reagent, ensure that the tissues always remain submerged in the reagent. Either keep the tubes upright during transport or fill the tubes completely with RNA Liv™ Reagent.

6. **After Storage, extract RNA from the tissues using HiMedia's HiPurA™ Total RNA Miniprep Purification Spin Kit (MB602).**

**NOTE:** Make sure to remove tissues from RNA Liv™ Reagent prior to disruption and homogenization in the RNA purification procedure. If tissues were stored at –20°C, remove any crystals that may have formed.

## Trouble Shooting Guide

<b>Problem</b>	<b>Solution</b>
<b><u>RNA degraded</u></b>	
Harvested animal tissue not immediately stabilized	Submerge the tissue in the appropriate volume of RNA Liv™ Reagent immediately after harvesting.
Too much animal tissue for proper stabilization	Reduce the amount of tissue, increase the amount of RNA Liv™ Reagent
Animal tissue too thick for stabilization	Cut large samples into slices less than 0.5 cm thick for stabilization in RNA Liv™ Reagent.
Animal tissue not fully submerged in RNA Liv™ Reagent	Ensure that the tissue remains fully submerged in the RNA Liv™ Reagent. Smaller tissues may tend to stick to the lid or the side of the container.
Frozen animal tissue used for stabilization	Use only fresh, unfrozen tissue for stabilization in RNA Liv™ Reagent.
Storage duration in RNA Liv™ Reagent exceeded	RNA stabilized tissue can be stored for up to 1 day at 37°C, up to 7 days at 15–25°C, or up to 4 weeks at 2–8°C, and can be archived at –20°C or –80°C. We recommend lower temperatures whenever possible.

### Technical Assistance

At HiMedia we pride ourselves on the quality and availability of our technical support. For any kind of technical assistance, mail at [mb@himedialabs.com](mailto:mb@himedialabs.com).



Consult instructions for use



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