

## 1. How do I resuspend and store my RNA oligos?

For cell culture, RNA oligonucleotides should be re-suspended in sterile nuclease-free water (the use of DEPC-treated water is not recommended) or cell media that is being used and then 0.2 micron sterile filtered.

For animal studies, the RNA oligonucleotides should be brought up in PBS and then 0.2 micron sterile filtered.

Proper storage of your RNA oligonucleotides will maximize their shelf life, allowing you to get the most use from your oligos.

Once re-suspended, oligonucleotide stock solutions are best kept frozen at  $-20^{\circ}\text{C}$  for several weeks and may remain stable for several months. The most important factor in storing working solutions is using nuclease-free, sterile water. Drying down of your oligos and storing them at  $-20^{\circ}\text{C}$  is recommended for long-term storage.

*Fluorescent oligonucleotides should be kept away from light as much as possible.*

## 2. Concentrations and Resuspension

- Concentrations confuse a lot of researchers. Remember, micromolar is micromoles per liter
- to make 100uM (umole/L or pmole/uL) solution  
nanomole \* 10 = volume in uL to resuspend

Example: receive 20 nmoles of oligo and add to 200uL of media would yield 100uM solution. That same 20 nmoles added to 2mL of media would yield a 10uM solution

Molecula products are licensed under U.S. and international patent rights owned by the Carnegie Institution of Washington that cover RNA interference.

The Carnegie Institution of Washington granted rights to Molecula to the claims of US Patent Applications 60/068562, 09/215257, PCT/US98/27233, Fire et. al #6,506,559.



---

MoleculA	
22863 Bryant Court, Suite 102	
Sterling, VA 20166 USA	
Telephone	703.481.9207
Toll Free	800.381.0856
Fax	703.481.9209
Internet	<a href="http://www.molecula.com">www.molecula.com</a>

---

## General Handling Instructions

RNA oligos are susceptible to degradation by exogenous ribonucleases introduced during handling. Your RNA oligos should not be handled with ungloved hands. RNase-free reagents and supplies should be used. Dried RNA oligos are stable for 1 year at -20°C.

## Resuspension of Annealed RNA Oligos

Oligonucleotides may be re-suspended at a convenient concentration, e.g 100uM, in RNase-free sterile water or serum free cell culture media. The use of DEPC-treated water is not recommended. Store at -20°C.

All Molecula Research Laboratories oligonucleotides are provided purified, pre annealed, and lyophilized. The duplexed RNA oligos are ready for use upon re-suspension. Once re-suspended, oligonucleotide stock solutions are best kept frozen at -20°C for several weeks and may remain stable for several months. The most important factor in storing working solutions is using nuclease-free, sterile water. Drying down of your oligos and keeping them at -20°C is recommended for long-term storage.

## Annealing of RNA Oligos

Molecula anneals each RNAi order to ensure quality. In a RNase-free microcentrifuge tube, Molecula combines the sense and antisense RNA oligonucleotides, RNase free water, and 5X RNA Annealing Buffer. The final concentration should be 20 - 100uM for each oligo in 1X Annealing Buffer. Heat for 1 min at 90C, followed by incubation for 1 hr at 37C. Once annealed, the double stranded RNA is more nuclease resistant and can be stored at -20°C in a non-frost free freezer.

## Annealing Buffer:

100mM Potassium Acetate  
30mM HEPES-KOH at pH 7.4  
2mM Magnesium Acetate

This solution can be stored frozen at -20°C and freeze-thawed many times.

## Working Concentration:

All Molecula siRNA duplexes are ready to transfect upon arrival and can be used at a final concentration of 10 - 100nM.

## Ordering Info:

Guaranteed Yield	Scale	Cat. No.
5 nmol RNAi Oligos	50 nmol	RI-005
20 nmol RNAi Oligos	200 nmol	RI-020
100 nmol RNAi Oligos	1 µmol	RI-100
5 nmoles siRNA control (non-silencing) duplexed, 2'-deprotected, and reverse phase purified		RI-000-DP
5 nmoles siRNA control (non-silencing) duplexed, 2'-deprotected, and reverse phase purified with 3'-sense strand fluorescein		RI-010-DP