IDT® miRNA Inhibitors

1. Centrifuge tubes before opening to ensure miRNA Inhibitor is at the bottom of the tube.

2. Resuspend miRNA Inhibitor in the appropriate volume of IDTE buffer, pH 8 (Cat # 11-01-02-05) or TE buffer to obtain the desired concentration. For example:

<table>
<thead>
<tr>
<th>Product</th>
<th>Volume for 100 μM*</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDT miRNA Inhibitor, 5 nmol</td>
<td>50 µL</td>
</tr>
<tr>
<td>IDT miRNA Inhibitor, 20 nmol</td>
<td>200 µL</td>
</tr>
</tbody>
</table>

* Further dilutions of IDT miRNA Inhibitors can be made using IDTE, pH 8 or TE buffer.

3. Store resuspended IDT miRNA Inhibitors at –20°C for up to 24 months.

Note: see next page for transfection tips.

www.idtdna.com
Successful miRNA modulation experiments require very high transfection efficiency of the miRNA inhibitors into cells:

- Typically, use methods similar to those designed for siRNA transfection (e.g., cationic lipids or electroporation). We routinely use Lipofectamine® 2000 (Thermo Fisher) in established cell lines, because it works well in a variety of cell lines.
- Perform preliminary experiments to optimize transfection conditions for primary or difficult-to-transfect cells.

Because miRNA function is based on recognition of a seed region rather than complete homology between miRNA and target, a single miRNA can regulate tens to hundreds of genes whose sequences do not share exact complementarity with the miRNA. Therefore, inhibition of a single miRNA will affect the expression of many genes. To ensure specificity, we recommend the following:

- Test the cells with various miRNA Inhibitors.
- Use the lowest possible amount of miRNA Inhibitors that results in the desired phenotype.