TruGrade® DNA Oligos

Reduce barcode cross talk in your multiplexed NGS experiments

Quality requirements for oligonucleotides used in next generation sequencing (NGS), such as indexed adapters and barcoded fusion primers, have reached unprecedented high levels. PAGE, HPLC, and other traditional purification methods, can effectively increase the amount of full-length oligo, but are incapable of reducing cross contamination that can occur in co-synthesized oligos.

For most experiments, such oligo-to-oligo cross talk does not influence experiment outcome. However, the use of indexed adapters containing even low levels of cross contamination can lead to barcode misalignment and sample misidentification, which may confound detection of rare variants.

TruGrade oligos are manufactured using proprietary methods that are proven to reduce index cross talk and increase success of multiplexed NGS experiments.

www.idtdna.com
TruGrade DNA oligos can be used in a variety of applications including, but not limited to:

- NGS library preparation to incorporate barcoded adapters for multiplexed sequencing
- PCR using barcoded fusion primers for multiplex amplicon sequencing
- Other molecular biology applications that are sensitive to oligo cross talk

The TruGrade synthesis and processing service is available for HPLC-purified DNA oligos and Ultramer® DNA oligos. These oligos can be shipped in either plates or tubes, and are available single-stranded or duplexed.

**Product specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>HPLC-purified DNA oligos</th>
<th>Ultramer DNA Oligos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical cross contamination¹</td>
<td>0.10–0.50%</td>
<td>0.01–0.05%</td>
</tr>
<tr>
<td>Typical time to shipment²</td>
<td>5–15 business days</td>
<td>3–10 business days</td>
</tr>
<tr>
<td>Synthesis scale</td>
<td>100 nmol, 250 nmol, or 1 µmol</td>
<td>N/A</td>
</tr>
<tr>
<td>Yield delivered</td>
<td>Variable</td>
<td>4 nmol or 20 nmol</td>
</tr>
</tbody>
</table>

¹ Typical cross contamination levels were determined using in-house proprietary QC techniques and information from our customers.
² Production time depends on the number of oligos ordered. Please inquire for an estimated ship date specific to your order.

Discover more at [www.idtdna.com/TruGrade](http://www.idtdna.com/TruGrade)