xGen™ Stubby Adapter–UDI Primers for Element

Overview

Use the xGen Stubby Adapter–UDI Primers for Element products to perform indexing PCR on NGS libraries that require TA-ligation (using the included stubby adapter) for Element Biosciences compatible library construction workflows that support indexing by PCR. **Note, when using an IDT Library Prep Kit, the xGen Stubby Adapter for Element should be used instead of the adapter supplied in the IDT Library Prep Kit.** For other commercial library prep workflows, refer to your library prep kit protocol for further instructions prior to using these products.

Product details

xGen Stubby Adapter–UDI Primers for Element are available in two reaction sizes (16 and 96). The xGen Stubby Adapter for Element is loaded in a multi-use tube and the xGen UDI Primers for Element are loaded into single-use plates.

- Single-use plates: The indexing primers are loaded into single-use 96-well plates containing a pierceable seal. The unique dual index (UDI) has a barcode length of 9 nucleotides. Each well contains one index pair for indexing one sample.
- xGen Stubby Adapter–UDI Primers Element, 16 rxn
- xGen Stubby Adapter–UDI Primers Element, 96 rxn

Low-level multiplexing

- For a 4-plex pool, use wells A1–D1
- For a 8-plex pool, use any column, except column 6
- For a 12-plex pool, use any row
- For a 16-plex pool, use columns 1 and 2
- For a 24-plex pool, use columns 1, 2, and 3

If you have specific questions, contact us.

Handling & Storage

- Store the xGen Stubby Adapter–UDI Primers for Element at –20°C
- Do not heat stubby adapters above room temperature (15–25°C)
- If any material remains unused, carefully re-seal the plate with a new adhesive seal to prevent cross-contamination.

Important: Do NOT attempt to heat seal the plate again.

1. Thaw the xGen Stubby Adapter–UDI Primers for Element on ice.

   Important: Keep the xGen Stubby Adapter–UDI Primers for Element on ice during use.

2. After thawing, briefly vortex both the tube containing the stubby adapter and the plate containing the primers, then centrifuge both tube and plate to collect the liquid at the bottom of the tube and wells. Do this before breaking the seal on the plate.
3. Prepare the Ligation Master Mix as instructed in the library prep protocol by adding the quantity of adapter determined by the library prep protocol being used.

   Tips:

   - The right amount of adapter is dependent on the protocol and input DNA quantity going into library prep.
   - If needed, use the NGS Adapter Buffer (Catalog No. 10006743) to dilute the stubby adapter.
4. Before plating the primers into the PCR reaction, pre-pierce the seal of the plate using a pipette tip, then directly pipette the required volume of primers into each reaction.

   Important: Always use a separate pipette tip for each well to avoid cross-contamination of the indexes.
5. Return any unused portion of the plate to storage at –20°C.

Sequencing and analysis

For customers not using an AVITI Cloudbreak system, circularization of the libraries is required. To perform this, we recommend the kit available from Element Biosciences (Catalog # 830-00001), found here.

Off-sequencer circularization is no longer required for libraries run on an AVITI Cloudbreak system

To view the sequences for each index primer, open the xGen for Element Biosciences™ Index List File, which can be found in the Resources section for xGen for Element Biosciences™.

For more information, go to: www.idtdna.com/ContactUs

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