

xGen™ Stubby Adapter-UDI Primers for DNBSEQ™

Overview

Use xGen Stubby Adapter-UDI Primers for DNBSEQ products to perform indexing PCR on NGS libraries that require TA-ligation (using the included stubby adapter) for DNBSEQ-compatible library construction workflows that support indexing by PCR. Note, when using an IDT library prep kit, the xGen Stubby Adapter for DNBSEQ 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 DNBSEQ are available in two reaction sizes (16 and two sets of 96). The xGen Stubby Adapter for DNBSEQ is loaded in a multi-use tube and the xGen UDI Primers for DNBSEQ 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 10 nucleotides. Each well contains one specific index pair for indexing one sample.
- xGen™ Stub Adapter-UDI Primers DNBSEQ™, 16 rxn
- xGen™ Stub Adapter-UDI Primers DNBSEQ™ P1, 96 rxn
- xGen™ Stub Adapter-UDI Primers DNBSEQ™ P2, 96 rxn

Low-level multiplexing

- For an 8-plex, use any column
- For an (8 + N)-plex, use any column + any N random wells in other columns

If you have specific questions, please [contact us](#).

Handling and storage

- Store the xGen Stubby Adapter-UDI Primers for DNBSEQ 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.

Directions for use

1. Thaw the xGen Stubby Adapter-UDI Primers for DNBSEQ™ on ice.
 - !** **Important:** Keep the xGen Stubby Adapter-UDI Primers for DNBSEQ 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 optimal amount of adapter is dependent on the protocol and initial input DNA quantity.
 - If needed, use NGS Adapter Buffer (catalog # 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 new 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

Prior to sequencing on a DNBSEQ system, circularization of the libraries is required. To perform this, we recommend the circularization kit available from MGI (catalog # 1000020570) found at https://en.mgi-tech.com/products/reagents_info/4/.

To view the sequences for each index primer, open the xGen™ for DNBSEQ™ Index List File, which is found in the **Resources section** of the xGen™ for DNBSEQ™ webpage.

Plate layouts

10017111 – xGen™ Stub Adapter-UDI Primers DNBSEQ™, 16 rxn

	1	2	3	4	5	6	7	8	9	10	11	12
A	UDB-1	UDB-9	empty	empty	empty	empty	empty	empty	empty	empty	empty	empty
B	UDB-2	UDB-10	empty	empty	empty	empty	empty	empty	empty	empty	empty	empty
C	UDB-3	UDB-11	empty	empty	empty	empty	empty	empty	empty	empty	empty	empty
D	UDB-4	UDB-12	empty	empty	empty	empty	empty	empty	empty	empty	empty	empty
E	UDB-5	UDB-13	empty	empty	empty	empty	empty	empty	empty	empty	empty	empty
F	UDB-6	UDB-14	empty	empty	empty	empty	empty	empty	empty	empty	empty	empty
G	UDB-7	UDB-15	empty	empty	empty	empty	empty	empty	empty	empty	empty	empty
H	UDB-8	UDB-16	empty	empty	empty	empty	empty	empty	empty	empty	empty	empty

10017112 – xGen™ Stub Adapter-UDI Primers DNBSEQ™ P1, 96 rxn

	1	2	3	4	5	6	7	8	9	10	11	12
A	UDB-1	UDB-9	UDB-17	UDB-25	UDB-33	UDB-41	UDB-49	UDB-57	UDB-65	UDB-73	UDB-81	UDB-89
B	UDB-2	UDB-10	UDB-18	UDB-26	UDB-34	UDB-42	UDB-50	UDB-58	UDB-66	UDB-74	UDB-82	UDB-90
C	UDB-3	UDB-11	UDB-19	UDB-27	UDB-35	UDB-43	UDB-51	UDB-59	UDB-67	UDB-75	UDB-83	UDB-91
D	UDB-4	UDB-12	UDB-20	UDB-28	UDB-36	UDB-44	UDB-52	UDB-60	UDB-68	UDB-76	UDB-84	UDB-92
E	UDB-5	UDB-13	UDB-21	UDB-29	UDB-37	UDB-45	UDB-53	UDB-61	UDB-69	UDB-77	UDB-85	UDB-93
F	UDB-6	UDB-14	UDB-22	UDB-30	UDB-38	UDB-46	UDB-54	UDB-62	UDB-70	UDB-78	UDB-86	UDB-94
G	UDB-7	UDB-15	UDB-23	UDB-31	UDB-39	UDB-47	UDB-55	UDB-63	UDB-71	UDB-79	UDB-87	UDB-95
H	UDB-8	UDB-16	UDB-24	UDB-32	UDB-40	UDB-48	UDB-56	UDB-64	UDB-72	UDB-80	UDB-88	UDB-96

10017113 – xGen™ Stub Adapter-UDI Primers DNBSEQ™ P2, 96 rxn

	1	2	3	4	5	6	7	8	9	10	11	12
A	UDB-97	UDB-105	UDB-113	UDB-121	UDB-129	UDB-137	UDB-145	UDB-153	UDB-161	UDB-169	UDB-177	UDB-185
B	UDB-98	UDB-106	UDB-114	UDB-122	UDB-130	UDB-138	UDB-146	UDB-154	UDB-162	UDB-170	UDB-178	UDB-186
C	UDB-99	UDB-107	UDB-115	UDB-123	UDB-131	UDB-139	UDB-147	UDB-155	UDB-163	UDB-171	UDB-179	UDB-187
D	UDB-100	UDB-108	UDB-116	UDB-124	UDB-132	UDB-140	UDB-148	UDB-156	UDB-164	UDB-172	UDB-180	UDB-188
E	UDB-101	UDB-109	UDB-117	UDB-125	UDB-133	UDB-141	UDB-149	UDB-157	UDB-165	UDB-173	UDB-181	UDB-189
F	UDB-102	UDB-110	UDB-118	UDB-126	UDB-134	UDB-142	UDB-150	UDB-158	UDB-166	UDB-174	UDB-182	UDB-190
G	UDB-103	UDB-111	UDB-119	UDB-127	UDB-135	UDB-143	UDB-151	UDB-159	UDB-167	UDB-175	UDB-183	UDB-191
H	UDB-104	UDB-112	UDB-120	UDB-128	UDB-136	UDB-144	UDB-152	UDB-160	UDB-168	UDB-176	UDB-184	UDB-192

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

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