Hieff NGS™ Dual UMI UDB Adapter Kit for MGI, Set 2

13368ES

INSTRUCTIONS FOR USE

Ver. HB230112

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Product description

Hieff NGS™ Dual UMI UDB Adapter Kit for MGI, Set 2 is a special kit for library preparation of MGI high-throughput sequencing platform. This kit contains the MGI UMI Adapters (short adapter) and the UDB Primers for high-throughput sequencing library preparation. The UMI Adapters include 8 bp Unique Molecular Identifier (UMI) used to detect low-frequency mutations which effectively reduce index hopping and mismatches, and ensure the accuracy and authenticity of the analysis results.

Components

Components No.	Name	48×2 T	48×4 T
13368	UMI Adapter for MGI	480 μL	960 μL
	UDB Primer 049-096	10 μL each	20 μL each

Specifications

Product Line	MGI platform adapter
Starting Material	DNA
Index type	UMI UDB
Workflow Step	Library Barcoding
Library type	Dual-indexed fragment libraries

Storage

-25°C ~ -15°C storage, valid for 18 months.

Notes

1. The concentration of UMI Adapter for MGI in this kit is 10 μM. The usage of adapters is adjustable to meet the require of different library preparation kits.

2. The UMI Adapters for MGI provided by this kit are universal short adapters which include dual-ends molecular identifier. PCR amplification is necessary for a complete library. UDB Primers provide Barcode sequences index to label different samples. The UDB Primers concentration in this kit is 10 μM.

3. The kit is divided into 2 sets. Each Set contains 48 dual-end Barcode Primers which compatible with DNA Library Prep Kit for MGI to prepare 96 dual-ended unique Index labelled libraries.

4. Do not heat the adapters. Please thaw the adapters at room temperature. The best room temperature is 20-25°C. To avoid repeated freeze-thawing, it is recommended to store as divided package, which can be stored briefly at 4°C.

5. The DNA library structure prepared by this kit is as follows:

6. For your safety and health, wear experimental clothes and operate disposable gloves.

7. This product is for scientific research only!

Sequence information

UMI Adapter for MGI:

5´-/5Phos/ NNNNNNNNAAGTCGGAGGCCAAGCGGTCTTAGGAAGACAATCA*G -3´

5´-TTGTCTTCCTAAGCAACTCCTTGGCTCACAGAACGACATGGCTACGATCCGACTTNNNNNNNN*T-3´

Barcode 2 Primer for MGI:

5´-/5Phos/CTCTCAGTACGTCAGCAGTT[Barcode 2]CAACTCCTTGGCTCACAGAAC -3´

Barcode 1 Primer for MGI:

5´-GCATGGCGACCTTATCAG[Barcode 1]TTGTCTTCCTAAGACCGCTTGG-3´

[Barcode 2] represents 10 bp Barcode 2 sequence, [Barcode 1] represents 10 bp Barcode 1 sequence. The Barcode names, the Barcode sequences of the primers, and the corresponding Barcode sequence information for the sequencing are shown in the table as follows:

Barcode_ID	Barcode2 Sequence	Barcode1 Sequence	
	Sequence for sequencer splitting (same as sequence in primer)	Sequence for sequencer splitting	Sequence in primer
UDB-P001	CGTCGATGAC	CGTCGTGTTA	TAACACGACG
UDB-P002	ATATAAGGCG	GAAGAGAACA	TGTTCTCTTC
UDB-P003	GATCGTGCTC	TTGTGAACTC	GAGTTCACAA
UDB-P004	CAGTCTTCGG	AGGACATCAG	CTGATGTCCT
UDB-P005	AGAACGATCT	GCCACTGTCT	AGACAGTGGC
UDB-P006	TTGGTGCATT	TAAGTGTGAG	CTCACACTTA
UDB-P007	GCCGTCATAA	ACTTACCGGC	GCCGGTAAGT
UDB-P008	TCCAACCAGA	CTCCTCCAGT	ACTGGAGGAG
UDB-P009	GATAGCAAGA	GTTACTGTTG	CAACAGTAAC
UDB-P010	ACCGTGCTTC	TGAGCGTTAT	ATAACGCTCA
UDB-P011	GCAGATGTAA	AGGCGCAATC	GATTGCGCCT
UDB-P012	TGTTGGAGCG	TCCAACACCG	CGGTGTTGGA
UDB-P013	TTGTATCCAC	GATGTTGGAA	TTCCAACATC
UDB-P014	CGCACAGATG	CCATGACGCA	TGCGTCATGG
UDB-P015	CAACTCTCGT	AAGCTATAGC	GCTATAGCTT
UDB-P016	ATGCCATGCT	CTCTAGCCGT	ACGGCTAGAG
UDB-P017	AGGCAGCTTA	CAATCTCTAC	GTAGAGATTG
UDB-P018	TAGCCTAGCG	TAACGCTCGA	TCGAGCGTTA
UDB-P019	ATCACGTGCG	ATCCTTCATC	GATGAAGGAT
UDB-P020	CGTTATGCGC	AGTACCTCGT	ACGAGGTACT
UDB-P021	CAAGGATCGA	TTGTAGGAAG	CTTCCTACAA
UDB-P022	GTTGTCGTAT	CGCGAGATTG	CAATCTCGCG
UDB-P023	GCAATCAATC	GCGATAGGCA	TGCCTATCGC
UDB-P024	TCCTGACAAT	GCTGGAAGCT	AGCTTCCAGC
UDB-P025	AGGTGCCTTA	GTGACAGCAC	GTGCTGTCAC
UDB-P026	AAGAACCAAG	GCATCTCGGA	TCCGAGATGC
UDB-P027	CATACATGAC	TAAGAGCTTC	GAAGCTCTTA
UDB-P028	TGCCTGGTGA	CCTTACTCAA	TTGAGTAAGG

UDB-P029	TCTCGGAGTT	ATTCGTGTTG	CAACACGAAT
UDB-P030	GTCGTAGACT	TAGCGGAGGT	ACCTCCGCTA
UDB-P031	GCATATACCG	CGCATATACT	AGTATATGCG
UDB-P032	CTAGCTTCGC	AGCGTCAACG	CGTTGACGCT
UDB-P033	GACGTATCAA	TAACTGCTAG	CTAGCAGTTA
UDB-P034	CCTGCTAGGA	GCGAGAATGC	GCATTCTCGC
UDB-P035	CAACTTGGCG	GTATTGGATC	GATCCAATAC
UDB-P036	ATGCGACCTC	CGTCATCGAA	TTCGATGACG
UDB-P037	GTTAAGGACG	TAGTATGCGG	CCGCATACTA
UDB-P038	TCCAAGTTGT	ATCGGCTCCA	TGGAGCCGAT
UDB-P039	AGGTCCATTC	AGCGCAAGCT	AGCTTGCGCT
UDB-P040	TGATGCCAAT	CCTACCTATT	AATAGGTAGG
UDB-P041	CCTAAGAGTT	TCTCAGCATA	TATGCTGAGA
UDB-P042	GATACTAGCT	ACAGAGACCG	CGGTCTCTGT
UDB-P043	AAGGCATCTC	CGACGTACAC	GTGTACGTCG
UDB-P044	TGGCATCTGG	CTCTTAGTAC	GTACTAAGAG
UDB-P045	ACACTGGAGC	GATATCCACT	AGTGGATATC
UDB-P046	GTATGCCACA	TGCGCAGTTG	CAACTGCGCA
UDB-P047	CTCTTAGTAG	GAGTCTTGGT	ACCAAGACTC
UDB-P048	TGCGGCTCAA	ATGAGCTGGA	TCCAGCTCAT
UDB-P049	TCACATTGCT	CGTTACTATC	GATAGTAACG
UDB-P050	AATGGCGCTC	TAGCCACTCA	TGAGTGGCTA
UDB-P051	GTCTCAATGA	GTAATGACGG	CCGTCATTAC
UDB-P052	CGGATGCAAG	ACCGGTGGAT	ATCCACCGGT
UDB-P053	AAGCCTATTG	CTGAACAAGC	GCTTGTTCAG
UDB-P054	CGCTACTGCA	AGTGCTTGTT	AACAAGCACT
UDB-P055	TCAAGAGCAT	TCACTGGCAA	TTGCCAGTGA
UDB-P056	GTTGTGCAGC	GACTGACTCG	CGAGTCAGTC
UDB-P057	AGACAGGAAT	GACATCGCGA	TCGCGATGTC
UDB-P058	CCTTGCCGTA	TGGTGTCACT	AGTGACACCA
UDB-P059	GTCATTACGG	CTTGAATGTC	GACATTCAAG
UDB-P060	TAGGCATTCC	ACACCGATAG	CTATCGGTGT
UDB-P061	AGCCAGTAGG	ACGTCATCGG	CCGATGACGT
UDB-P062	GTAAGTGTAC	CTCGAGATAA	TTATCTCGAG
UDB-P063	TAGTCACGTT	GGTATCGGCT	AGCCGATACC
UDB-P064	CCTGTCACCA	TAACGTCATC	GATGACGTTA
UDB-P065	ATCGTGGATG	ATACCGCGTC	GACGCGGTAT
UDB-P066	TGGAGATCGA	GACGTCTCGT	ACGAGACGTC
UDB-P067	CCTCACAGAT	TCTTGAGTAG	CTACTCAAGA
UDB-P068	GAATCTCTCC	CGGAATAACA	TGTTATTCCG
UDB-P069	GCAGACTGAC	TCAGTGACGG	CCGTCACTGA
Barcode_ID	Barcode2 Sequence	Barcode1 Sequence	
	Sequence for sequencer splitting (same as sequence in primer)	Sequence for sequencer splitting	Sequence in primer
UDB-P070	CTCATTAACG	AGTTGCGTCA	TGACGCAACT

UDB-P071	TGGTGAGCTT	GAGCAACAAC	GTTGTTGCTC
UDB-P072	AATCCGCTGA	CTCACTTGTT	AACAAGTGAG
UDB-P073	TCGCATCAAC	ATTCCAACCA	TGGTTGGAAT
UDB-P074	AGAACAGTGA	CCGAACGTTC	GAACGTTCGG
UDB-P075	CATGTCTCCT	TGCGTGCGAT	ATCGCACGCA
UDB-P076	GTCTGGAGTG	GAATGTTAGG	CCTAACATTC
UDB-P077	GAGGTCTGTG	CATCCACACG	CGTGTGGATG
UDB-P078	CTATAGACGT	ACCGACGTAA	TTACGTCGGT
UDB-P079	TGCAGTGACC	GTATGTTCGT	ACGAACATAC
UDB-P080	ACTCCACTAA	TGGATGAGTC	GACTCATCCA
UDB-P081	GCGAAGTAGG	GAGTCAGGCA	TGCCTGACTC
UDB-P082	TGCCTAACCT	AGCGATAATG	CATTATCGCT
UDB-P083	AATGGTCTAC	CCTCGCTTAC	GTAAGCGAGG
UDB-P084	CTATCCGGTA	TTAATGCCGT	ACGGCATTAA
UDB-P085	TACGCTTCAG	TGGCAGTGTC	GACACTGCCA
UDB-P086	CGGAGCATCT	CATGCTACGG	CCGTAGCATG
UDB-P087	GTACTAGATC	GCCATAGAAT	ATTCTATGGC
UDB-P088	ACTTAGCGGA	ATATGCCTCA	TGAGGCATAT
UDB-P089	ATCACTCCAT	TGGCGCGTAT	ATACGCGCCA
UDB-P090	GATCGCAGTG	GTCACTAAGA	TCTTAGTGAC
UDB-P091	CCGGAATTCC	AATGTACCTC	GAGGTACATT
UDB-P092	TGATTGGAGA	CCATAGTGCG	CGCACTATGG
UDB-P093	CACAAGGTCG	AAGCGAGCCA	TGGCTCGCTT
UDB-P094	TCTCGCAGGA	CTTAAGTGAC	GTCACTTAAG
UDB-P095	GTGGTATCAT	GCCTCTATTG	CAATAGAGGC
UDB-P096	AGATCTCATC	TGAGTCCAGT	ACTGGACTCA

Note: For the Dual Barcode sequence design of the MGI platform, in the Barcode 1-48, every 8 barcodes are one group; in the Barcode 49-96, every 4 barcodes are one group. In order to achieve the optimal sequencing quality, when prepare multi sample libraries, it is recommended to use Barcodes of continuous Barcode_ID to prepare libraries, and the Barcode types need to be more than 8.

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To enable success of our customers
Together to make a healthier and brighter world

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