

UDI Indexing Primer Information Sheet (Set C, IDT from 2018, 8bp's)

Design:

Truseq with 8bp long indexes

The Truseq design is the oldest Illumina library design that is used by e.g. ligation based NGS library preparation. The grafting part of the indexing PCR primers are identical for Truseq and other designs, but the sequencing primer part in the indexing Primer is specific for Truseq. Unique Dual Indexing (UDI) refers to an unique combination of a P5 indexing PCR Primer and a P7 indexing PCR Primer. So for the final PCR amplification in the library preparation please only use one of these 96 combinations of P5 and P7 indexing PCR primers to achieve unique dual indexing. UDI is needed to avoid so called index hopping on the sequencer flowcell. If you want to learn more about index hopping and UDI, please read <https://www.illumina.com/information/sequencing/next-generation/next-generation-library-prep/index-hopping.html>. For ordering of oligos please use the sequences given in column E (P5 indexing primers) and column L (P7 indexing primers).

When submitting libraries that are made with this indexing PCR Primers please specify in the notes column in the sample submission dialog or sheet the used index combination as given in column A 'UDI_Name'

Important information for sample submission:

P5 Indexing PCR Primer

grafting part AATGATAGGGGACCCAGGACTCAAC
sequencing primer part ACACCTTTCCCTACAGGAGGCTCTCCGATCT

UDI_Name	Oligo Name	Index Name	Index Sequence	PCR Primer (order these Oligos in NGS quality, * indicates a phosphothioate to block exonucleases)
UDI 193_UB_193	Truseq_UBI_P5_UB_193	UDI 193	ACTTCCTG	*-AAATGATAGGGGACCCAGGACTCAAC ACACCTTTC
UDI 194_UB_194	Truseq_UBI_P5_UB_194	UDI 194	TGTGTSAT	*-AAATGATAGGGGACCCAGGACTCAAC TGTGTSAT
UDI 195_UB_195	Truseq_UBI_P5_UB_195	UDI 195	GTTGATGG	*-AAATGATAGGGGACCCAGGACTCAAC GTTGTGAT
UDI 196_UB_196	Truseq_UBI_P5_UB_196	UDI 196	TAGGATGC	*-AAATGATAGGGGACCCAGGACTCAAC TAGGATGC
UDI 197_UB_197	Truseq_UBI_P5_UB_197	UDI 197	CATGAAGC	*-AAATGATAGGGGACCCAGGACTCAAC CATGAAGC
UDI 198_UB_198	Truseq_UBI_P5_UB_198	UDI 198	CTTAATCG	*-AAATGATAGGGGACCCAGGACTCAAC CTTAATCG
UDI 199_UB_199	Truseq_UBI_P5_UB_199	UDI 199	CTAATCGT	*-AAATGATAGGGGACCCAGGACTCAAC CTAATCGT
UDI 200_UB_200	Truseq_UBI_P5_UB_200	UDI 200	ACATGTGG	*-AAATGATAGGGGACCCAGGACTCAAC ACATGTGG
UDI 201_UB_201	Truseq_UBI_P5_UB_201	UDI 201	TAGACAAA	*-AAATGATAGGGGACCCAGGACTCAAC TAGACAAA
UDI 202_UB_202	Truseq_UBI_P5_UB_202	UDI 202	TATAGAGG	*-AAATGATAGGGGACCCAGGACTCAAC TATAGAGG
UDI 203_UB_203	Truseq_UBI_P5_UB_203	UDI 203	AGGAGATG	*-AAATGATAGGGGACCCAGGACTCAAC AGGAGATG
UDI 204_UB_204	Truseq_UBI_P5_UB_204	UDI 204	AAGSGTCA	*-AAATGATAGGGGACCCAGGACTCAAC AAGSGTCA
UDI 205_UB_205	Truseq_UBI_P5_UB_205	UDI 205	CGAATGAG	*-AAATGATAGGGGACCCAGGACTCAAC CGAATGAG
UDI 206_UB_206	Truseq_UBI_P5_UB_206	UDI 206	TCGGAGTT	*-AAATGATAGGGGACCCAGGACTCAAC TCGGAGTT
UDI 207_UB_207	Truseq_UBI_P5_UB_207	UDI 207	TTCTGTGG	*-AAATGATAGGGGACCCAGGACTCAAC TTCTGTGG
UDI 208_UB_208	Truseq_UBI_P5_UB_208	UDI 208	ATTCTGCG	*-AAATGATAGGGGACCCAGGACTCAAC ATTCTGCG
UDI 209_UB_209	Truseq_UBI_P5_UB_209	UDI 209	AGTGTGAG	*-AAATGATAGGGGACCCAGGACTCAAC AGTGTGAG
UDI 210_UB_210	Truseq_UBI_P5_UB_210	UDI 210	CATAGAGG	*-AAATGATAGGGGACCCAGGACTCAAC CATAGAGG
UDI 211_UB_211	Truseq_UBI_P5_UB_211	UDI 211	CAGTGTTC	*-AAATGATAGGGGACCCAGGACTCAAC CAGTGTTC
UDI 212_UB_212	Truseq_UBI_P5_UB_212	UDI 212	TGCTGTCT	*-AAATGATAGGGGACCCAGGACTCAAC TGCTGTCT
UDI 213_UB_213	Truseq_UBI_P5_UB_213	UDI 213	ACTGTGTC	*-AAATGATAGGGGACCCAGGACTCAAC ACTGTGTC
UDI 214_UB_214	Truseq_UBI_P5_UB_214	UDI 214	GTATGTGG	*-AAATGATAGGGGACCCAGGACTCAAC GTATGTGG
UDI 215_UB_215	Truseq_UBI_P5_UB_215	UDI 215	CGATGCTT	*-AAATGATAGGGGACCCAGGACTCAAC CGATGCTT
UDI 216_UB_216	Truseq_UBI_P5_UB_216	UDI 216	AAGGCTGA	*-AAATGATAGGGGACCCAGGACTCAAC AAGGCTGA
UDI 217_UB_217	Truseq_UBI_P5_UB_217	UDI 217	AATGAGAA	*-AAATGATAGGGGACCCAGGACTCAAC AATGAGAA
UDI 218_UB_218	Truseq_UBI_P5_UB_218	UDI 218	CAGGATAT	*-AAATGATAGGGGACCCAGGACTCAAC CAGGATAT
UDI 219_UB_219	Truseq_UBI_P5_UB_219	UDI 219	CTGTAGAA	*-AAATGATAGGGGACCCAGGACTCAAC CTGTAGAA
UDI 220_UB_220	Truseq_UBI_P5_UB_220	UDI 220	TTGAGGCT	*-AAATGATAGGGGACCCAGGACTCAAC TTGAGGCT
UDI 221_UB_221	Truseq_UBI_P5_UB_221	UDI 221	TCGTGAGG	*-AAATGATAGGGGACCCAGGACTCAAC TCGTGAGG
UDI 222_UB_222	Truseq_UBI_P5_UB_222	UDI 222	TTGATGTA	*-AAATGATAGGGGACCCAGGACTCAAC TTGATGTA
UDI 223_UB_223	Truseq_UBI_P5_UB_223	UDI 223	CTGTGTTT	*-AAATGATAGGGGACCCAGGACTCAAC CTGTGTTT
UDI 224_UB_224	Truseq_UBI_P5_UB_224	UDI 224	GGGTTCTA	*-AAATGATAGGGGACCCAGGACTCAAC GGGTTCTA
UDI 225_UB_225	Truseq_UBI_P5_UB_225	UDI 225	CAGGCTTC	*-AAATGATAGGGGACCCAGGACTCAAC CAGGCTTC
UDI 226_UB_226	Truseq_UBI_P5_UB_226	UDI 226	AGGATGAG	*-AAATGATAGGGGACCCAGGACTCAAC AGGATGAG
UDI 227_UB_227	Truseq_UBI_P5_UB_227	UDI 227	GTGTGTTT	*-AAATGATAGGGGACCCAGGACTCAAC GTGTGTTT
UDI 228_UB_228	Truseq_UBI_P5_UB_228	UDI 228	GTATGATC	*-AAATGATAGGGGACCCAGGACTCAAC GTATGATC
UDI 229_UB_229	Truseq_UBI_P5_UB_229	UDI 229	GGATGAGT	*-AAATGATAGGGGACCCAGGACTCAAC GGATGAGT
UDI 230_UB_230	Truseq_UBI_P5_UB_230	UDI 230	GACAGAGG	*-AAATGATAGGGGACCCAGGACTCAAC GACAGAGG
UDI 231_UB_231	Truseq_UBI_P5_UB_231	UDI 231	TTAGGCGT	*-AAATGATAGGGGACCCAGGACTCAAC TTAGGCGT
UDI 232_UB_232	Truseq_UBI_P5_UB_232	UDI 232	AGCGAAGG	*-AAATGATAGGGGACCCAGGACTCAAC AGCGAAGG
UDI 233_UB_233	Truseq_UBI_P5_UB_233	UDI 233	AACGGAAG	*-AAATGATAGGGGACCCAGGACTCAAC AACGGAAG
UDI 234_UB_234	Truseq_UBI_P5_UB_234	UDI 234	TTGTGCTT	*-AAATGATAGGGGACCCAGGACTCAAC TTGTGCTT
UDI 235_UB_235	Truseq_UBI_P5_UB_235	UDI 235	CTACAGTA	*-AAATGATAGGGGACCCAGGACTCAAC CTACAGTA
UDI 236_UB_236	Truseq_UBI_P5_UB_236	UDI 236	GTATGAGG	*-AAATGATAGGGGACCCAGGACTCAAC GTATGAGG
UDI 237_UB_237	Truseq_UBI_P5_UB_237	UDI 237	GATCGTAC	*-AAATGATAGGGGACCCAGGACTCAAC GATCGTAC
UDI 238_UB_238	Truseq_UBI_P5_UB_238	UDI 238	CTATAGGT	*-AAATGATAGGGGACCCAGGACTCAAC CTATAGGT
UDI 239_UB_239	Truseq_UBI_P5_UB_239	UDI 239	CGAATGAG	*-AAATGATAGGGGACCCAGGACTCAAC CGAATGAG
UDI 240_UB_240	Truseq_UBI_P5_UB_240	UDI 240	CAAGTGCA	*-AAATGATAGGGGACCCAGGACTCAAC CAAGTGCA
UDI 241_UB_241	Truseq_UBI_P5_UB_241	UDI 241	CGATGATG	*-AAATGATAGGGGACCCAGGACTCAAC CGATGATG
UDI 242_UB_242	Truseq_UBI_P5_UB_242	UDI 242	AGGATGAT	*-AAATGATAGGGGACCCAGGACTCAAC AGGATGAT
UDI 243_UB_243	Truseq_UBI_P5_UB_243	UDI 243	GGCAGTAT	*-AAATGATAGGGGACCCAGGACTCAAC GGCAGTAT
UDI 244_UB_244	Truseq_UBI_P5_UB_244	UDI 244	ATGGAAGG	*-AAATGATAGGGGACCCAGGACTCAAC ATGGAAGG
UDI 245_UB_245	Truseq_UBI_P5_UB_245	UDI 245	AAGAGTCA	*-AAATGATAGGGGACCCAGGACTCAAC AAGAGTCA
UDI 246_UB_246	Truseq_UBI_P5_UB_246	UDI 246	TACAGGCT	*-AAATGATAGGGGACCCAGGACTCAAC TACAGGCT
UDI 248_UB_248	Truseq_UBI_P5_UB_248	UDI 248	CGTCTTCT	*-AAATGATAGGGGACCCAGGACTCAAC CGTCTTCT
UDI 249_UB_249	Truseq_UBI_P5_UB_249	UDI 249	ACCGCATA	*-AAATGATAGGGGACCCAGGACTCAAC ACCGCATA
UDI 250_UB_250	Truseq_UBI_P5_UB_250	UDI 250	TGGTCTTT	*-AAATGATAGGGGACCCAGGACTCAAC TGGTCTTT
UDI 251_UB_251	Truseq_UBI_P5_UB_251	UDI 251	CGATAGGT	*-AAATGATAGGGGACCCAGGACTCAAC CGATAGGT
UDI 252_UB_252	Truseq_UBI_P5_UB_252	UDI 252	AACCTTTC	*-AAATGATAGGGGACCCAGGACTCAAC AACCTTTC
UDI 253_UB_253	Truseq_UBI_P5_UB_253	UDI 253	CAAGGTCG	*-AAATGATAGGGGACCCAGGACTCAAC CAAGGTCG
UDI 254_UB_254	Truseq_UBI_P5_UB_254	UDI 254	GTGTTGAA	*-AAATGATAGGGGACCCAGGACTCAAC GTGTTGAA
UDI 255_UB_255	Truseq_UBI_P5_UB_255	UDI 255	CGGATATC	*-AAATGATAGGGGACCCAGGACTCAAC CGGATATC
UDI 256_UB_256	Truseq_UBI_P5_UB_256	UDI 256	AATCTGTG	*-AAATGATAGGGGACCCAGGACTCAAC AATCTGTG
UDI 257_UB_257	Truseq_UBI_P5_UB_257	UDI 257	CGTCTTGG	*-AAATGATAGGGGACCCAGGACTCAAC CGTCTTGG
UDI 258_UB_258	Truseq_UBI_P5_UB_258	UDI 258	GGAACTGG	*-AAATGATAGGGGACCCAGGACTCAAC GGAACTGG
UDI 259_UB_259	Truseq_UBI_P5_UB_259	UDI 259	AGBTGATC	*-AAATGATAGGGGACCCAGGACTCAAC AGBTGATC
UDI 260_UB_260	Truseq_UBI_P5_UB_260	UDI 260	CGATGATG	*-AAATGATAGGGGACCCAGGACTCAAC CGATGATG
UDI 261_UB_261	Truseq_UBI_P5_UB_261	UDI 261	AAGCTGCT	*-AAATGATAGGGGACCCAGGACTCAAC AAGCTGCT
UDI 262_UB_262	Truseq_UBI_P5_UB_262	UDI 262	TGAGATGC	*-AAATGATAGGGGACCCAGGACTCAAC TGAGATGC
UDI 263_UB_263	Truseq_UBI_P5_UB_263	UDI 263	CTGTGTTT	*-AAATGATAGGGGACCCAGGACTCAAC CTGTGTTT
UDI 264_UB_264	Truseq_UBI_P5_UB_264	UDI 264	ACDAGCAAC	*-AAATGATAGGGGACCCAGGACTCAAC ACDAGCAAC
UDI 265_UB_265	Truseq_UBI_P5_UB_265	UDI 265	GCATCAGC	*-AAATGATAGGGGACCCAGGACTCAAC GCATCAGC
UDI 266_UB_266	Truseq_UBI_P5_UB_266	UDI 266	TGGTGTGA	*-AAATGATAGGGGACCCAGGACTCAAC TGGTGTGA
UDI 267_UB_267	Truseq_UBI_P5_UB_267	UDI 267	TTGTGGST	*-AAATGATAGGGGACCCAGGACTCAAC TTGTGGST
UDI 268_UB_268	Truseq_UBI_P5_UB_268	UDI 268	TAGCGGAA	*-AAATGATAGGGGACCCAGGACTCAAC TAGCGGAA
UDI 269_UB_269	Truseq_UBI_P5_UB_269	UDI 269	AGGGATAG	*-AAATGATAGGGGACCCAGGACTCAAC AGGGATAG
UDI 270_UB_270	Truseq_UBI_P5_UB_270	UDI 270	TTAGAGAG	*-AAATGATAGGGGACCCAGGACTCAAC TTAGAGAG
UDI 271_UB_271	Truseq_UBI_P5_UB_271	UDI 271	TGCGAGAA	*-AAATGATAGGGGACCCAGGACTCAAC TGCGAGAA
UDI 272_UB_272	Truseq_UBI_P5_UB_272	UDI 272	CGAGTGTG	*-AAATGATAGGGGACCCAGGACTCAAC CGAGTGTG
UDI 273_UB_273	Truseq_UBI_P5_UB_273	UDI 273	GTGATGTA	*-AAATGATAGGGGACCCAGGACTCAAC GTGATGTA
UDI 274_UB_274	Truseq_UBI_P5_UB_274	UDI 274	GATGGGAG	*-AAATGATAGGGGACCCAGGACTCAAC GATGGGAG
UDI 275_UB_275	Truseq_UBI_P5_UB_275	UDI 275	ACGGTCTT	*-AAATGATAGGGGACCCAGGACTCAAC ACGGTCTT
UDI 276_UB_276	Truseq_UBI_P5_UB_276	UDI 276	CGATGATG	*-AAATGATAGGGGACCCAGGACTCAAC CGATGATG
UDI 277_UB_277	Truseq_UBI_P5_UB_277	UDI 277	CAACACTA	*-AAATGATAGGGGACCCAGGACTCAAC CAACACTA
UDI 278_UB_278	Truseq_UBI_P5_UB_278	UDI 278	TGTGTGAT	*-AAATGATAGGGGACCCAGGACTCAAC TGTGTGAT
UDI 279_UB_279	Truseq_UBI_P5_UB_279	UDI 279	ACATAGGC	*-AAATGATAGGGGACCCAGGACTCAAC ACATAGGC
UDI 280_UB_280	Truseq_UBI_P5_UB_280	UDI 280	TAGAGTGA	*-AAATGATAGGGGACCCAGGACTCAAC TAGAGTGA
UDI 281_UB_281	Truseq_UBI_P5_UB_281	UDI 281	GGAGTAA	*-AAATGATAGGGGACCCAGGACTCAAC GGAGTAA
UDI 282_UB_282	Truseq_UBI_P5_UB_282	UDI 282	TCGATGTC	*-AAATGATAGGGGACCCAGGACTCAAC TCGATGTC
UDI 283_UB_283	Truseq_UBI_P5_UB_283	UDI 283	AGATGATC	*-AAATGATAGGGGACCCAGGACTCAAC AGATGATC
UDI 284_UB_284	Truseq_UBI_P5_UB_284	UDI 284	CGTACTAT	*-AAATGATAGGGGACCCAGGACTCAAC CGTACTAT
UDI 285_UB_285	Truseq_UBI_P5_UB_285	UDI 285	GAGCTCAA	*-AAATGATAGGGGACCCAGGACTCAAC GAGCTCAA
UDI 286_UB_286	Truseq_UBI_P5_UB_286	UDI 286	AGGTTGTA	*-AAATGATAGGGGACCCAGGACTCAAC AGGTTGTA
UDI 287_UB_287	Truseq_UBI_P5_UB_287	UDI 287	TTGTAAGT	*-AAATGATAGGGGACCCAGGACTCAAC TTGTAAGT
UDI 288_UB_288	Truseq_UBI_P5_UB_288	UDI 288	CTGTGTTT	*-AAATGATAGGGGACCCAGGACTCAAC CTGTGTTT

P7 Indexing Primer Part

grafting part CAAGCGAAGAGGGGATCAAGGAT
sequencing primer part GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT

UDI_Name	Oligo Name	Index Name	Index Sequence	Index Sequence (ic for Primer)	PCR Primer (order these Oligos in NGS quality, * indicates a phosphothioate to block exonucleases)
UDI 193_UB_193	Truseq_UBI_P7_UB_193	UDI 193	CTTCGTC	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 194_UB_194	Truseq_UBI_P7_UB_194	UDI 194	CTTAGTAC	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 195_UB_195	Truseq_UBI_P7_UB_195	UDI 195	ACTGTGTA	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 196_UB_196	Truseq_UBI_P7_UB_196	UDI 196	GAGTCAA	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 197_UB_197	Truseq_UBI_P7_UB_197	UDI 197	GGTGTACT	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 198_UB_198	Truseq_UBI_P7_UB_198	UDI 198	ACTGACA	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 199_UB_199	Truseq_UBI_P7_UB_199	UDI 199	TCATGTC	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 200_UB_200	Truseq_UBI_P7_UB_200	UDI 200	GGAGTAA	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 201_UB_201	Truseq_UBI_P7_UB_201	UDI 201	CAAGAGT	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 202_UB_202	Truseq_UBI_P7_UB_202	UDI 202	AGATAGG	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 203_UB_203	Truseq_UBI_P7_UB_203	UDI 203	TGTGACT	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 204_UB_204	Truseq_UBI_P7_UB_204	UDI 204	CAGACTA	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 205_UB_205	Truseq_UBI_P7_UB_205	UDI 205	CTGCTAT	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 206_UB_206	Truseq_UBI_P7_UB_206	UDI 206	ACGGTCT	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 207_UB_207	Truseq_UBI_P7_UB_207	UDI 207	GATGGAG	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 208_UB_208	Truseq_UBI_P7_UB_208	UDI 208	TTGGACA	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 209_UB_209	Truseq_UBI_P7_UB_209	UDI 209	CGGTTGT	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 210_UB_210	Truseq_UBI_P7_UB_210	UDI 210	TGACCAA	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 211_UB_211	Truseq_UBI_P7_UB_211	UDI 211	TTGACAG	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 212_UB_212	Truseq_UBI_P7_UB_212	UDI 212	AGGATAG	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 213_UB_213	Truseq_UBI_P7_UB_213	UDI 213	TAGCGAA	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 214_UB_214	Truseq_UBI_P7_UB_214	UDI 214	TTGTGGT	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 215_UB_215	Truseq_UBI_P7_UB_215	UDI 215	CACTAGG	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 216_UB_216	Truseq_UBI_P7_UB_216	UDI 216	GATAGC	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 217_UB_217	Truseq_UBI_P7_UB_217	UDI 217	ACAGAAC	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 218_UB_218	Truseq_UBI_P7_UB_218	UDI 218	CTGTCT	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 219_UB_219	Truseq_UBI_P7_UB_219	UDI 219	AGGATCA	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 220_UB_220	Truseq_UBI_P7_UB_220	UDI 220	AACCTCT	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 221_UB_221	Truseq_UBI_P7_UB_221	UDI 221	AGCGATT	CAAGCGAAGAGGGGATCAAGGAT	*-CAAGCGAAGAGGGGATCAAGGAT GTACTGAGTGTCCAGAGTGTGCTCTCCGATCT
UDI 222_UB_222	Truseq_UBI_P7_UB_222	UDI 222	AGGATCT	CAAGCGAAGAGGGGAT	