

Illumina Hiseq4000 compatible Primers (for PCR and sequencing)
Prepare roughly equal numbers of samples using Set A and Set B

Set A

Sample id	TruSeq ID	Paired End 5' Primer (orange indicates sample index for demultiplexing after sequencing)
1	12	aatgatacggcgaccaccgagatctacacgatcgggaagagcacacgtctgaactccagtcac CTTGTA gca caaaggaaactcacct
3	14	aatgatacggcgaccaccgagatctacacgatcgggaagagcacacgtctgaactccagtcac AGTTCC gca caaaggaaactcacct
5	3	aatgatacggcgaccaccgagatctacacgatcgggaagagcacacgtctgaactccagtcac TTAGGC gca caaaggaaactcacct

Common 3' Primer CAAGCAGAAGACGGCATAACGAGATCGACTCGGTGCCACTTTTTTC

Set B

Sample id	Truseq ID	Paired End 3' Primer
2	6	aatgatacggcgaccaccgagatctacacgatcgggaagagcacacgtctgaactccagtcac GCCAAT CGACTCGGTGCCACTTTTTTC
4	10	aatgatacggcgaccaccgagatctacacgatcgggaagagcacacgtctgaactccagtcac TAGCTT CGACTCGGTGCCACTTTTTTC
6	1	aatgatacggcgaccaccgagatctacacgatcgggaagagcacacgtctgaactccagtcac ATCACG CGACTCGGTGCCACTTTTTTC

Common 5' Primer CAAGCAGAAGACGGCATAACGAGATGCACAAAAGGAAACTCACCCCT

Submit pooled samples from both A and B for sequencing along with a mix of the following two primers:

5' Sequencing Primer GTGTGTTTTGAGACTATAAGTATCCCTTGGAGAACCACCTTGTTG

3' Sequencing Primer TGATAACGGACTAGCCTTATTTAAACTTGCTATGCTGTTTCCAGCTTA

The index that is appended to sgRNA samples allows each sample to be uniquely identified, even when pooled into a single sequencing lane. Consult with your sequencing facility to find out how many reads to expect per lane, and plan for 250-500 reads per sgRNA per sample. For example, a typical genome-scale 200k library screen should have at least 50M reads per sample (e.g. T0, treated, untreated), and each should be PCR amplified such that they have a unique index. Before proceeding plan out how you want to pool/run your samples on the flow cell. If you are sharing a lane with another lab member ask them which indices they are using. If you are running fewer than 6 samples on a lane, use indices 12,6 or 12,6,14 or 12,6,14,10, etc, to ensure the indices are read correctly.

Sample id	Truseq id	Set	Index				
1	TruSeq Index 12 CTTGTA	A	CTTGTA	21	TruSeq Index 19 GTGAAA	A	GTGAAA
2	TruSeq Index 6 GCCAAT	B	GCCAAT	22	TruSeq Index 20 GTGGCC	B	GTGGCC
3	TruSeq Index 14 AGTTCC	A	AGTTCC	23	TruSeq Index 21 GTTTCG	A	GTTTCG
4	TruSeq Index 10 TAGCTT	B	TAGCTT	24	TruSeq Index 25 ACTGAT	B	ACTGAT
5	TruSeq Index 3 TTAGGC	A	TTAGGC				
6	TruSeq Index 1 ATCACG	B	ATCACG				
7	TruSeq Index 23 GAGTGG	A	GAGTGG				
8	TruSeq Index 13 AGTCAA	B	AGTCAA				
9	TruSeq Index 5 ACAGTG	A	ACAGTG				
10	TruSeq Index 4 TGACCA	B	TGACCA				
11	TruSeq Index 7 CAGATC	A	CAGATC				
12	TruSeq Index 11 GGCTAC	B	GGCTAC				
13	TruSeq Index 9 GATCAG	A	GATCAG				
14	TruSeq Index 2 CGATGT	B	CGATGT				
15	TruSeq Index 16 CCGTCC	A	CCGTCC				
16	TruSeq Index 18 GTCCGC	B	GTCCGC				
17	TruSeq Index 8 ACTTGA	A	ACTTGA				

18	TruSeq Index 22 CGTACG	B	CGTACG
19	TruSeq Index 27 ATTCCT	A	ATTCCT
20	TruSeq Index 15 ATGTCA	B	ATGTCA