nature protocols

SUPPLEMENTARY INFORMATION

https://doi.org/10.1038/s41596-019-0243-6

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Genome-wide profiling of nucleosome position and chromatin accessibility in single cells using scMNase-seq

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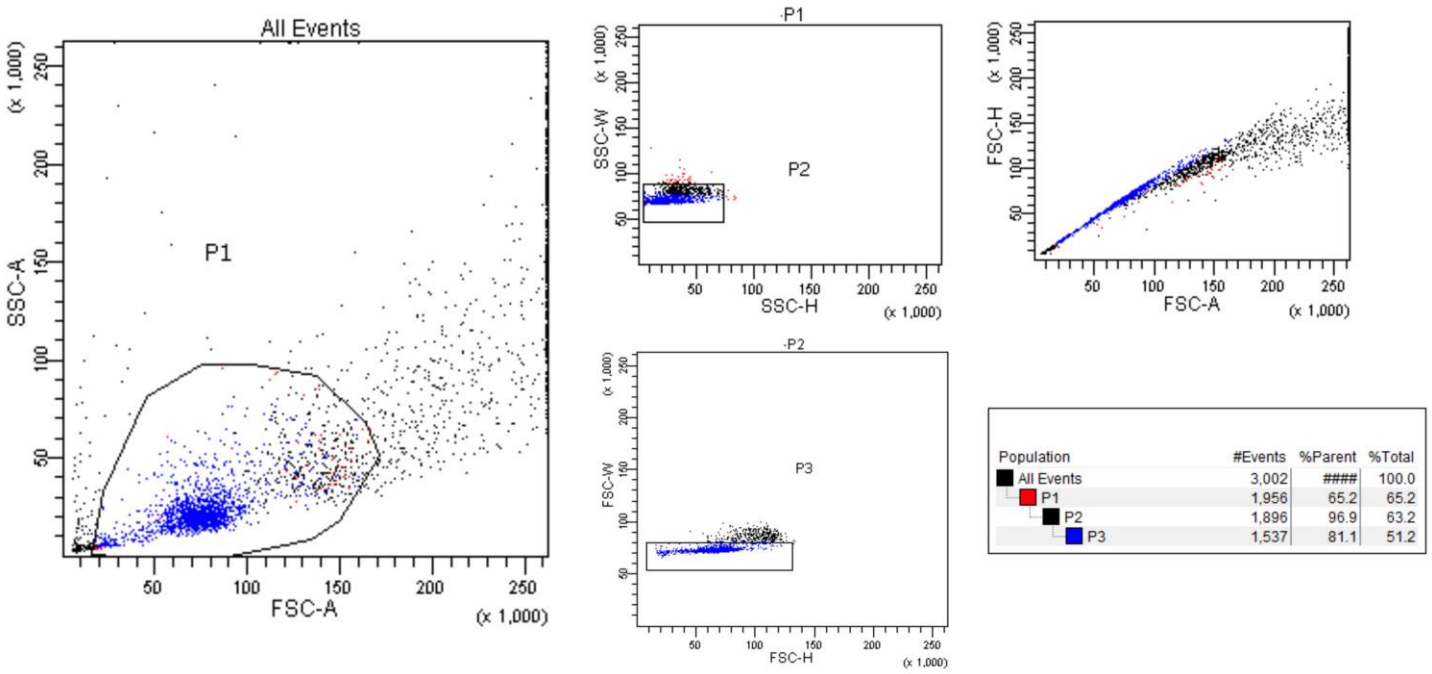

Supplementary Figure 1

FACS sorting single cells by forward versus side scatter (FSC vs SSC) gating.

Formaldehyde-fixed mouse naïve T cells (100K) were submitted for FACS sorting based on size and granularity (FSC vs SSC, P1 gate), and cell doublets were excluded firstly by SSC-H vs SSC-W (P2 gate) and further by FSC-H vs FSC-W (P3 gate)

Supplementary Table 1, oligo sequence for primers and adaptors used in this protocol.

illumina adapter-top	/5Phos/GAT CGG AAG AGC ACA CGT CT	250nm	STD		
illumina adapter-bottom	ACACTCTTTCCCTACACGACGCTCTTCCGATCT	250nm	STD		
illumina PCR Primer 1.0	AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTTCCGATC*T	1um	HPLC		
				i7 name	i7 index sequence
Primer 2.0- IndexM1	CAAGCAGAAGACGGCATACGAGATCGTGATGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M1	ATCACG
Primer 2.0- IndexM2	CAAGCAGAAGACGGCATACGAGATACATCGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M2	CGATGT
Primer 2.0- IndexM3	CAAGCAGAAGACGGCATACGAGATGCCTAAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M3	TTAGGC
Primer 2.0- IndexM4	CAAGCAGAAGACGGCATACGAGATTGGTCAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M4	TGACCA
Primer 2.0- IndexM5	CAAGCAGAAGACGGCATACGAGATCACTGTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M5	ACAGTG
Primer 2.0- IndexM6	CAAGCAGAAGACGGCATACGAGATATTGGCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M6	GCCAAT
Primer 2.0- IndexM7	CAAGCAGAAGACGGCATACGAGATGATCTGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M7	CAGATC
Primer 2.0- IndexM8	CAAGCAGAAGACGGCATACGAGATTCAAGTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M8	ACTTGA
Primer 2.0- IndexM9	CAAGCAGAAGACGGCATACGAGATCTGATCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M9	GATCAG
Primer 2.0- IndexM10	CAAGCAGAAGACGGCATACGAGATAAGCTAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M10	TAGCTT
Primer 2.0- IndexM11	CAAGCAGAAGACGGCATACGAGATGTAGCCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M11	GGCTAC
Primer 2.0- IndexM12	CAAGCAGAAGACGGCATACGAGATTACAAGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M12	CTTGTA
Primer 2.0-IndexM14	CAAGCAGAAGACGGCATACGAGATGGAACTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M14	AGTTCC
Primer 2.0-IndexM18	CAAGCAGAAGACGGCATACGAGATGCGGACGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M18	GTCCGC
Primer 2.0-IndexM23	CAAGCAGAAGACGGCATACGAGATCCACTCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M23	GAGTGG
Primer 2.0-IndexM25	CAAGCAGAAGACGGCATACGAGATATCAGTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M25	ACTGAT
Primer 2.0-IndexM27	CAAGCAGAAGACGGCATACGAGATAGGAATGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M27	ATTCCT
Primer 2.0-IndexM29	CAAGCAGAAGACGGCATACGAGATTAGTTGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M29	CAACTA
Primer 2.0-IndexM37	CAAGCAGAAGACGGCATACGAGATATTCCGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M37	CGGAAT
Primer 2.0-IndexM40	CAAGCAGAAGACGGCATACGAGATTCTGAGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M40	CTCAGA
Primer 2.0-IndexM42	CAAGCAGAAGACGGCATACGAGATCGATTAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M42	TAATCG
Primer 2.0-IndexM45	CAAGCAGAAGACGGCATACGAGATGAATGAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M45	TCATTC
Primer 2.0-IndexM46	CAAGCAGAAGACGGCATACGAGATTCGGGAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M46	TCCCGA
Primer 2.0-IndexM47	CAAGCAGAAGACGGCATACGAGATCTTCGAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M47	TCGAAG

Primer 2.0-IndexM13	CAAGCAGAAGACGGCATACGAGATTTGACTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M13	AGTCAA
Primer 2.0-IndexM17	CAAGCAGAAGACGGCATACGAGATCTCTACGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M17	GTAGAG
Primer 2.0-IndexM21	CAAGCAGAAGACGGCATACGAGATCGAAACGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M21	GTTTCG
Primer 2.0-IndexM26	CAAGCAGAAGACGGCATACGAGATGCTCATGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M26	ATGAGC
Primer 2.0-IndexM30	CAAGCAGAAGACGGCATACGAGATCCGGTGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M30	CACCGG
Primer 2.0-IndexM31	CAAGCAGAAGACGGCATACGAGATATCGTGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M31	CACGAT
Primer 2.0-IndexM35	CAAGCAGAAGACGGCATACGAGATAAAATGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M35	CATTTT
Primer 2.0-IndexM38	CAAGCAGAAGACGGCATACGAGATAGCTAGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M38	CTAGCT
Primer 2.0-IndexM41	CAAGCAGAAGACGGCATACGAGATTAGCGCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M41	GCGCTA
Primer 2.0-IndexM43	CAAGCAGAAGACGGCATACGAGATGCTGTAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M43	TACAGC
Primer 2.0-IndexM44	CAAGCAGAAGACGGCATACGAGATATTATAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M44	TATAAT
Primer 2.0-IndexM48	CAAGCAGAAGACGGCATACGAGATTGCCGAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	250nm	HPLC	M48	TCGGCA
Primer 2.0-IndexG1	CAAGCAGAAGACGGCATACGAGATCGTACCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G1	GGTACG
Primer 2.0-IndexG2	CAAGCAGAAGACGGCATACGAGATGCCACGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G2	CGTGGC
Primer 2.0-IndexG3	CAAGCAGAAGACGGCATACGAGATGATGGCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G3	GCCATC
Primer 2.0-IndexG4	CAAGCAGAAGACGGCATACGAGATCAGTGAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G4	TCACTG
Primer 2.0-IndexG5	CAAGCAGAAGACGGCATACGAGATAAGTCTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G5	AGACTT
Primer 2.0-IndexG6	CAAGCAGAAGACGGCATACGAGATCTAGCTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G6	AGCTAG
Primer 2.0-IndexG7	CAAGCAGAAGACGGCATACGAGATACTGGTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G7	ACCAGT
Primer 2.0-IndexG8	CAAGCAGAAGACGGCATACGAGATAGTGTCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G8	GACACT
Primer 2.0-IndexG9	CAAGCAGAAGACGGCATACGAGATGGATCGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G9	CGATCC
Primer 2.0-IndexG10	CAAGCAGAAGACGGCATACGAGATCAGGTTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G10	AACCTG
Primer 2.0-IndexG11	CAAGCAGAAGACGGCATACGAGATCGTATGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G11	CATACG
Primer 2.0-IndexG12	CAAGCAGAAGACGGCATACGAGATAGTCGTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G12	ACGACT
Primer 2.0-IndexG13	CAAGCAGAAGACGGCATACGAGATGGCTATGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G13	ATAGCC
Primer 2.0-IndexG14	CAAGCAGAAGACGGCATACGAGATACTGTGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G14	CACAGT
Primer 2.0-IndexG15	CAAGCAGAAGACGGCATACGAGATGACAATGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G15	ATTGTC
Primer 2.0-IndexG16	CAAGCAGAAGACGGCATACGAGATAGTCTGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G16	CAGACT
Primer 2.0-IndexG17	CAAGCAGAAGACGGCATACGAGATTGCAACGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G17	GTTGCA
Primer 2.0-IndexG18	CAAGCAGAAGACGGCATACGAGATGTTATCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G18	GATAAC
Primer 2.0-IndexG19	CAAGCAGAAGACGGCATACGAGATCTTGAGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G19	CTCAAG

Primer 2.0-IndexG20	CAAGCAGAAGACGGCATACGAGATGTTAGGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G20	CCTAAC
Primer 2.0-IndexG21	CAAGCAGAAGACGGCATACGAGATCTGGGTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G21	ACCCAG
Primer 2.0-IndexG22	CAAGCAGAAGACGGCATACGAGATGCTCGAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G22	TCGAGC
Primer 2.0-IndexG23	CAAGCAGAAGACGGCATACGAGATCCTAGTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G23	ACTAGG
Primer 2.0-IndexG24	CAAGCAGAAGACGGCATACGAGATAAGTGCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G24	GCACTT
Primer 2.0-IndexG25	CAAGCAGAAGACGGCATACGAGATCGGTGCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G25	GCACCG
Primer 2.0-IndexG26	CAAGCAGAAGACGGCATACGAGATACTTGGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G26	CCAAGT
Primer 2.0-IndexG27	CAAGCAGAAGACGGCATACGAGATCAATCCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G27	GGATTG
Primer 2.0-IndexG28	CAAGCAGAAGACGGCATACGAGATTGTGCAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G28	TGCACA
Primer 2.0-IndexG29	CAAGCAGAAGACGGCATACGAGATGAATACGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G29	GTATTC
Primer 2.0-IndexG30	CAAGCAGAAGACGGCATACGAGATCCTACGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G30	CGTAGG
Primer 2.0-IndexG31	CAAGCAGAAGACGGCATACGAGATCTAAGAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G31	TCTTAG
Primer 2.0-IndexG32	CAAGCAGAAGACGGCATACGAGATAGGTCCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G32	GGACCT
Primer 2.0-IndexG33	CAAGCAGAAGACGGCATACGAGATACGGTAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G33	TACCGT
Primer 2.0-IndexG34	CAAGCAGAAGACGGCATACGAGATGACCCAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G34	TGGGTC
Primer 2.0-IndexG35	CAAGCAGAAGACGGCATACGAGATTTAGCGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G35	CGCTAA
Primer 2.0-IndexG36	CAAGCAGAAGACGGCATACGAGATAGTCTAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	G36	TAGACT
Primer 2.0-Indexnew1	CAAGCAGAAGACGGCATACGAGATGTACGTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new1	ACGTAC
Primer 2.0-Indexnew2	CAAGCAGAAGACGGCATACGAGATCAGCCTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new2	AGGCTG
Primer 2.0-Indexnew3	CAAGCAGAAGACGGCATACGAGATACGTATGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new3	ATACGT
Primer 2.0-Indexnew4	CAAGCAGAAGACGGCATACGAGATCTATGGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new4	CCATAG
Primer 2.0-Indexnew5	CAAGCAGAAGACGGCATACGAGATCTGCAGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new5	CTGCAG
Primer 2.0-Indexnew6	CAAGCAGAAGACGGCATACGAGATATACAGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new6	CTGTAT
Primer 2.0-Indexnew7	CAAGCAGAAGACGGCATACGAGATCATGTCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new7	GACATG
Primer 2.0-Indexnew8	CAAGCAGAAGACGGCATACGAGATGACGTCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new8	GACGTC
Primer 2.0-Indexnew9	CAAGCAGAAGACGGCATACGAGATTATACCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new9	GGTATA
Primer 2.0-Indexnew10	CAAGCAGAAGACGGCATACGAGATAGCATAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new10	TATGCT
Primer 2.0-Indexnew11	CAAGCAGAAGACGGCATACGAGATGTCGGAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new11	TCCGAC
Primer 2.0-Indexnew12	CAAGCAGAAGACGGCATACGAGATCATGCAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new12	TGCATG
Primer 2.0-Indexnew13	CAAGCAGAAGACGGCATACGAGATTATGTTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new13	AACATA
Primer 2.0-Indexnew14	CAAGCAGAAGACGGCATACGAGATGCGTGTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new14	ACACGC

Primer 2.0-Indexnew15	CAAGCAGAAGACGGCATACGAGATAGAGGTGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new15	ACCTCT
Primer 2.0-Indexnew16	CAAGCAGAAGACGGCATACGAGATTGATGGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new16	CCATCA
Primer 2.0-Indexnew17	CAAGCAGAAGACGGCATACGAGATCTGTCGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new17	CGACAG
Primer 2.0-Indexnew18	CAAGCAGAAGACGGCATACGAGATACGCAGGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new18	CTGCGT
Primer 2.0-Indexnew19	CAAGCAGAAGACGGCATACGAGATTGCGTCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new19	GACGCA
Primer 2.0-Indexnew20	CAAGCAGAAGACGGCATACGAGATTGCGCCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new20	GGCGCA
Primer 2.0-Indexnew21	CAAGCAGAAGACGGCATACGAGATACTACCGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new21	GGTAGT
Primer 2.0-Indexnew22	CAAGCAGAAGACGGCATACGAGATCACATAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new22	TATGTG
Primer 2.0-Indexnew23	CAAGCAGAAGACGGCATACGAGATTCTACAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new23	TGTAGA
Primer 2.0-Indexnew24	CAAGCAGAAGACGGCATACGAGATTTACAAGTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T	100nm	HPLC	new24	TTGTAA