Supporting Information for "Orthogonal Enzyme Arrays on a DNA Origami Scaffold Bearing Size-Tunable Wells" by Takahiro Yamazaki, Yuichiro Aiba, Takahiro Yamazaki, Jonathan Heddle, Akinori Kuzuya,* Makoto Komiyama*
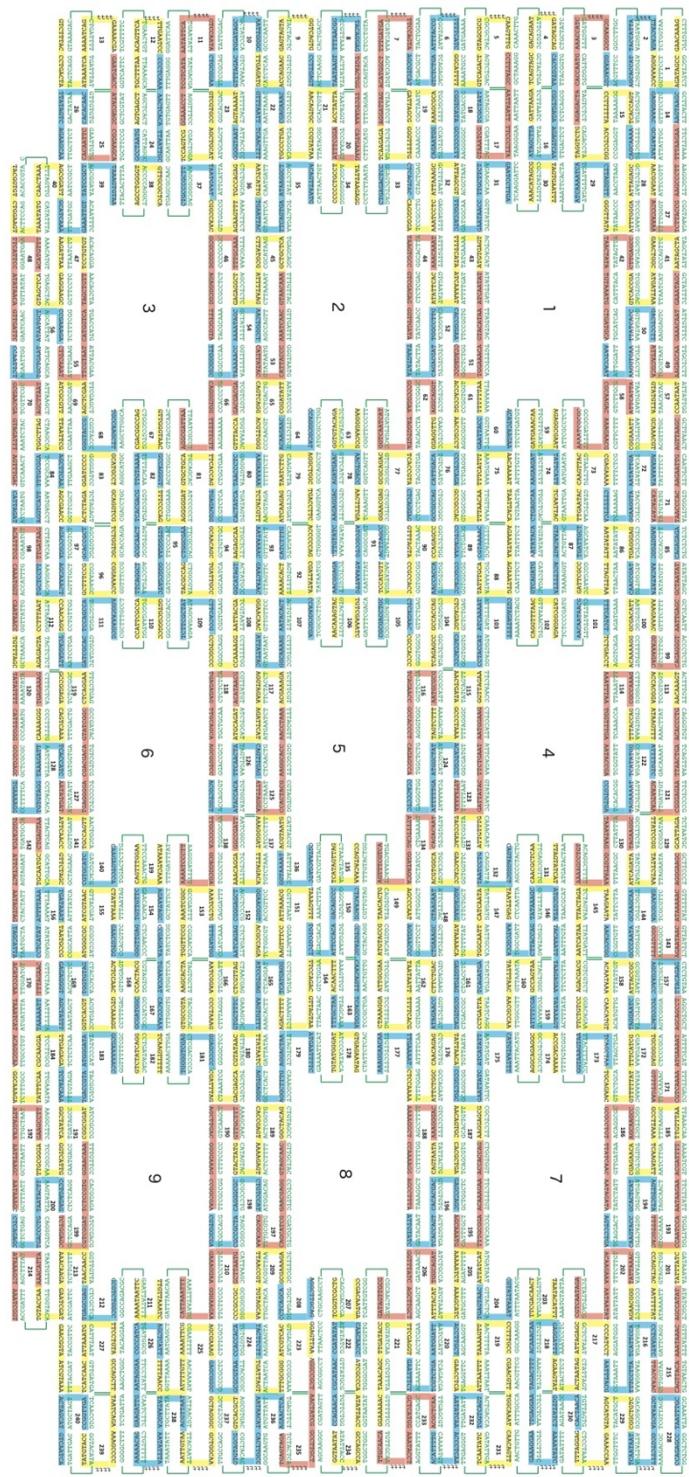
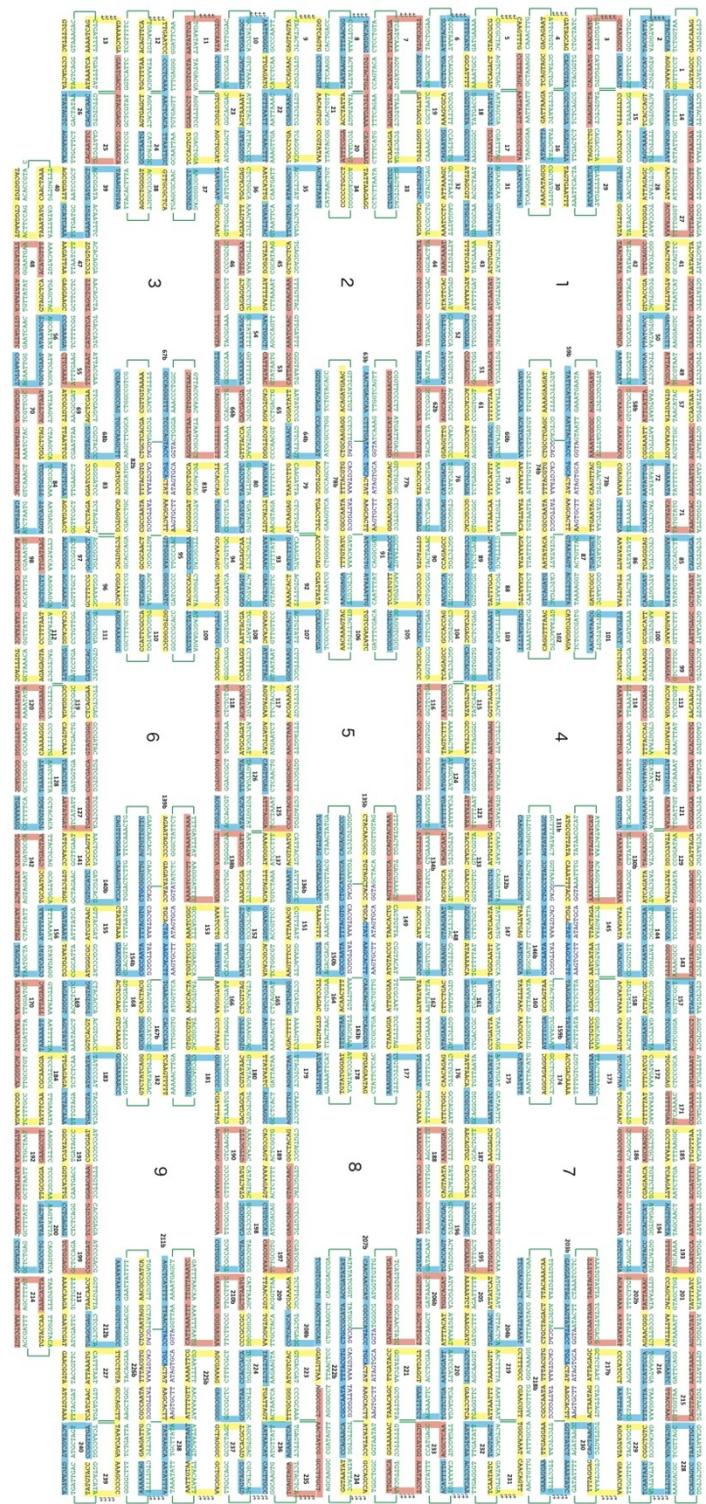**Figure S1.** Detailed structure of a DNA waffle with 4-turn wells.

Figure S2. Detailed structure of a DNA waffle with 3-turn wells.

Table S1. Sequence of the staple strands.

Name	Sequence
Waffle1	AGGAAACCAGATAGCCGAACAAAGTTTT
Waffle2	GGAAACGTAGCACCATTACCATTATTTTTTACCAGA
Waffle3	AGAGACTACACCAATGAAACCATCTTTTGCAAGGCC
Waffle4	GATTAAGATCAGTAGCGACAGAATTTTTGATAGCAG
Waffle5	GGCATTTTGTCAGACTGTAGCGCGTTTCAAGTTTG
Waffle6	AGCGTCATGTCTCTGAATTTACCGTTTTTTTTCATC
Waffle7	AGGATTAGACATGGCTTTTGATGATTTTTTCCAGTA
Waffle8	CCTTGAGTTAATAAGTTTTAACGGTTTTTACAGGAG
Waffle9	TTGAGATGACCAGAACGAGTAGTATTTTGGTCAGTG
Waffle10	CTGCGGAAGTTTAGACTGGATAGCTTTTAATTGGGC
Waffle11	GGAAACCTTCGTCATAAATATTCATTTTGTCCAATA
Waffle12	AGTGAGCTTGCTTTAAACAGTTCATTTTTTGAATCC
Waffle13	TTTTGTCTTTACCCTGACTAATAAATCAAAAATCAGTTTTGAAAACGA
Waffle14	AAGTAAGCGAAGGAAACGCAATAATCAGCAAAA
Waffle15	TCACCAGTGCTTTTAAACCTCCGGTAGGTCTG
Waffle16	CACCGTAACGCTGAGAAGAGTCAAATAGCTTA
Waffle17	CCTTTAGCAATTAATTTTCCCTTAGTAAATCG
Waffle18	TCGCTATTCGGTCATAGCCCCCTTCAGAATGG
Waffle19	AAAGCGCAGATTAGCGGGGTTTTGTCAAGAGA
Waffle20	TGTACTGGTTCTGAAACATGAAAGATTTCGGA
Waffle21	ACCTATTAAACAGTGCCCGTATAATGCCCTGA
Waffle22	CGAGAAACGTTTAATTTCAACTTTGGGGTAAT
Waffle23	AGTAAAATGTCGTGCCAGCTGCATTCCAGTCG
Waffle24	CCCTCAAAAACTCACATTAATTGCGCCTAATG
Waffle25	GAATGACCATACGAGCCGGAAGCACACAATTC
Waffle26	CACACAACTTATAGTCACGAAGCAA
Waffle27	ACCCAAAATCTTACCGAAGCCCTTTTTAAGAA
Waffle28	GGGTTATAATTTGGGAATTAGAGCAACGGAAT
Waffle29	ATCAAAATCACTTAGGTT
Waffle30	AAACATAGCGTAGTGAATTT
Waffle31	TTGCCATCGAATAACCTTGCTTCTGAATCCTTGA
Waffle32	CAGGCGGAAAATCCTCATTAAAGCATTAGCGT
Waffle33	CTGAGACTCCCTCAGTAC
Waffle34	CCCCCTGCCTTATTAAGAGG
Waffle35	TGAATTACTTCAGTGAATAAGGCTACAGTTAATG
Waffle36	CGGCCAACAGAAGTTTTGCCAGAGAATCATTG
Waffle37	CTGCCCGCTTTAATGAAT
Waffle38	AGCCTGGGGTGTTGCGCTCA
Waffle39	GCATCAAAGAAATTGTTATCCGCTTAAAGTGTAA
Waffle40	TTTTTACGGTGTCTGGAGTTAAATATGCAACTAAAAGCGGATT
Waffle41	AATAGCTAGAACTGGCATGATTAAGTCACCGA
Waffle42	CTTGAGCCTAACTATATGTAAATGCTGATGCA
Waffle43	ATGTGAGTTTTTCATAATCAAAATATATTCAC
Waffle44	AAACAAATTAAGTGCCGTCGAGAGGGTTGATA
Waffle45	GCTGCTCACTTATGCGATTTTAAGGAAGAGCT
Waffle46	TTTGCAAAGCGCGGGAGAGGCGGTTTGCGTA
Waffle47	TCCTGTGTAAGATTAAGAGGAAGCGTAGCTCA
Waffle48	ACATGTTTTTCATTCCATATAACAGTTGATTC
Waffle49	ATTACGCAAAGAGCAAGAAACAATGAAATAGC
Waffle50	AATCCAATAAGGTGAATTATCACCGACTCCTT
Waffle51	CCAGAGCCTGGAAACAGTACATAAATCAATAT
Waffle52	TAAGTATACAGACGATTGGCCTTGCACCGGAA
Waffle53	CATTATACCATTACCCAAATCAACGTAACAAA
Waffle54	TTGGGCGCTAAAAACCAAAATAGCAACTGGCT
Waffle55	CTTCAAATTTCGTAATCATGGTCATAGCTGTT
Waffle56	CCAATTCTTGCTGAATATAATGCTCCGAAGAGA
Waffle57	CCAATAATGTATGTTAGCAAACGTCGGAAATT
Waffle58	ATTCATTACGCAAGACAAAGAACGAAAATCGCGC
Waffle59	AGAGGCGAATGATGAAACAA
Waffle60	ACATCAAGAAGAATTACC
Waffle61	TTTTTTAAACCACCGGAACCGCCTGGAAGGTTG
Waffle62	AGGCAGGTGCCCGGAATAGGTGTAGGTCAATCAT
Waffle63	AAGGGAACCGGGTGACAGA
Waffle64	CCAGGCGCATACAAGAAC
Waffle65	CGGATATTCAGTCAGGACGTTGGGGTTTACCA
Waffle66	GACGACGACAGGGTGGTTTTTCTTAGGCGATTAA
Waffle67	GTTGGGTAACCGACGGCCAG
Waffle68	TGCCAAGCTTGGGTACCG
Waffle69	AGCTCGAAATCGCGTTTTAATTCGTGGCTTAG
Waffle70	AGCTTAATGCGAACGAGTAGATTTAGTTTGAC
Waffle71	CATACATATAACCCACAAGAATTGAGTTAAGC
Waffle72	CTTTTTCAGGAAGGTAAATATTGAAGAAAATA
Waffle73	TCAATTACTTGAATACCAAGTTACCGAGAAAA
Waffle74	AATATACACTGAGCAAAAGAAGATTATTCATT
Waffle75	GCCGCCACTTTAACAATTTCATTTAACAAAAT
Waffle76	CTCAGGAGGCCGCCAGCATTGACACCTTCCAGA
Waffle77	AACTTTGAGGAACGAGGCGCAGACTCACCGTA
Waffle78	TTTGTATCAAGAGGACAGATGAACAACTGACC
Waffle79	TCTACGTTATCAAGAGTAATCTTGAGGCTGGC
Waffle80	TGAGACGGCACTATCATAACCCTCAAGAAAAA
Waffle81	TTTCCCAGAGGGGGATGTGCTGCATTCACCAG
Waffle82	GCGCAACTTCACGACGTTGTAAAAGCCAGGGT
Waffle83	AGCGAACCACTCTAGAGGATCCCCGCATGCCT
Waffle84	CATTAGATAGGTCATTTTTGCGGAAGCTTCAA
Waffle85	CAGAGAGAAAGGTGGCAACATATACAACCGAT
Waffle86	TGAGGGAGAATATATTTTAGTTAAGATTCGCC
Waffle87	TGATTGCTGTAACAGTACCTTTTAGTCAGATG
Waffle88	TAATTACAAGAAATAAAGAAATTGTATTTGCA
Waffle89	CGTAAAGCCTCAGAACCGCCACCAACCACCA
Waffle90	CCAGAGCCGTTTAGTACCGCCACCTCCATGTT
Waffle91	ACTTAGCCATCGCCTGATAAATTGAACGGAGA
Waffle92	TGACCTTCACCCCCAGCGATTATAAAAACACT
Waffle93	CATCTTTGAATAAAACGAACTAACGGCATAGT
Waffle94	AAGAGCAAGCAACAGCTGATTGCCTACGCCAG
Waffle95	CTGGCGAAGTTGGGAAGGGCGATCTTCAGGCT
Waffle96	GCAGGTCGTCTGGTGCCGGAAACCGCTTTCCG
Waffle97	GCACCGCTAGACCGGAAGCAAACTTGCTCCTT
Waffle98	TTGATAAGACATTTCGCAAATGGTCAATAACC
Waffle99	GCAAAGACCAGAGGGTAATTGAGCGCTAATAT
Waffle100	TCTGACCTACAAAAGGGCGACATTAAAGAAAC
Waffle101	AACAATAACGTTTCATCT
Waffle102	CAGGTTTAACCATCGGGAGA
Waffle103	CACCACCCCCTACCATATCAAAATCGTAGATTTT
Waffle104	CGCCACCCTCAGAGCCGCCACCAGCTCAGAGC
Waffle105	CGCGACCTGCCTCAGAAC
Waffle106	AACAAAGTACTGTCGAAATC
Waffle107	ATTATTACGGCAAAAGAATACACTCCAAGCGCGA
Waffle108	CCTGGCCCCCAAAAGGAATTACGAGGAACAAC
Waffle109	TCTTCGCTATCTTCACCG
Waffle110	CCATTCGCCAGGTGCGGGCC
Waffle111	TCAGGATTGATCGCACTCCAGCCAAGGCAAAGCG
Waffle112	TGTTTAGCAGAGAGTACCTTTAATCCAACAGG
Waffle113	AACAAAGTACCACGGAATAAGTTTTTTACCAG
Waffle114	CGCCAAAGAAATTTAATGGTTTGAAATACCGA
Waffle115	GGTTAGAAAACTGATAGCCCTAAATAGTCTTT
Waffle116	AATGCGCGTCAGAACCGCCACCCTCAGAGCCA
Waffle117	ACGAAAGAAGGTAGAAAGATTCATATGCAGAT
Waffle118	ACATAACGTGAGAGAGTTGCAGCAAGCGGTCC
Waffle119	CTCAGGAAGCCGGAGACAGTCAAACAAAAGGG
Waffle120	TGAGAAAGTATATTTTCATTTGGGGCGCGAGC

| Fil Strand 1 | TATTGGCGAAGTGCTTATAGTGCAGGTAGCAGCACGTAAA |
| Fil Strand 2 | AATATTGGCGGACGCATTCGCTGTTGCCGTTGTACTTGTCTCGGTCTG AAAAGTGCTTATAGTGCAGGTAGCAGCTCGTA |

Name	Sequence
Waffle121	ACAATCAACGGGAGAATTAACTGAACACCCTG
Waffle122	CCGTGTGATAGAAAATTCATATGGATTTTGTC
Waffle123	ATTAAAAAGATTATACTTCTGAATAATGGAAG
Waffle124	CCACCCTCATTTTTGAATGGCTATACATCCGC
Waffle125	ATTTAGGACCACTACGAAGGCACCAACCTAAA
Waffle126	ACGCTGGTATACCACATTCAACTACAGTTGAG
Waffle127	AATATGATTGAGGGGACGACGACAGTATCGGC
Waffle128	TGAAAAGGTGTGTAGGTAAAGATTTCACCATC
Waffle129	GCATTAGATTATCCGGTATTCTAAATCAGATA
Waffle130	TAGAAGGCTAAATAAGGCGTTAAAAAAAGCCTGT
Waffle131	TTAGTATCATCAACGCTCAA
Waffle132	CAGTAGGGCTTAATCCTG
Waffle133	ATTGTTTGTACCGAACGAACCACCCACGTGGCA
Waffle134	CAGACAATATTTCGAGGATAGCAAGTTTCCGTCA
Waffle135	CCAGTACAAATCATAGTTAG
Waffle136	CGTAACGATCGGTAAAAT
Waffle137	ACGTAATGAAAGGGATTTTAGACAAAACAGGA
Waffle138	GGCCGATTTTGCCCCAGCAGGCGAAAAATCCCTT
Waffle139	ATAAATCAAACAGTTTGGAA
Waffle140	CAAGAGTCCACGTGCATC
Waffle141	TGCCAGTTATTCAACCGTTCTAGCTGCAATGC
Waffle142	CTGAGTAATGGCATCAATTCTACTAATAGTAG
Waffle143	GGCGTTTTAGAATAACATAAAAACAGGGAAGC
Waffle144	AACACCGGGCCCAATAGCAAGCAAGAACGCGA
Waffle145	AGACGACGAATCATAATTACTAGATAAGAATA
Waffle146	AATCGCCACTTACCAGTATAAAGCATGCGTTA
Waffle147	ATAAAACATGGCAATTCATCAATATAATTGAG
Waffle148	AGGAACCCCTGAAAGCGTAAGAATAGCAGAAG
Waffle149	ATTGCGAAATGTACCGTAACACTGAGCCCAAT
Waffle150	TGTCGTCTATTCCACAGACAGCCCCTACAACG
Waffle151	ACGCCAGAAAGTTTCCATTAAACGTAAAGTTT
Waffle152	TTTGATGGAATCAGAGCGGGAGCTGGAACGGT
Waffle153	AAGCACTATGGTTCCGAAATCGGCAAATCCTG
Waffle154	GAACGTGGGGGTTGAGTGTTGTTCAGAATAGC
Waffle155	TAATGCCGATGGGCGCATCGTAACCTATTAAA
Waffle156	TAGCATTACCTCATATATTTTAAATGATAAAT
Waffle157	TTACAGAGAGCGAACCTCCCGACTTAGGAATC
Waffle158	ATTACCGCACAATAAACAACATGTTTCTGTCC
Waffle159	TACAAATTTAAGAGAATATAAAGTATTTTCGA
Waffle160	GCCAGTAATATTTAACAACGCCAACCTGATTA
Waffle161	TCAGATGAGAGGTGAGGCGGTCAGATAGAACC
Waffle162	CTTCTGACTAATAATTTTTTCACGCTAAAGGA
Waffle163	CCTGTAGCCAACAGTTTCAGCGGATTTGCTAA
Waffle164	ACAACTTTTTCCAGACGTTAGTAAAGACTTTT
Waffle165	TCATGAGGATCCTGAGAAGTGTTTGTGCTTTC
Waffle166	CTCGTTAGAATCGGAACCCTAAAGGTGCCGTA
Waffle167	CCGAGATATGAACCATCACCCAAAGCGATGGC
Waffle168	CCACTACGACTCCAACGTCAAAGGGGTCACGT
Waffle169	TGGTGTAGGAGAGGGTAGCTATTTTAAAAATT
Waffle170	TTTAGAACACATCCAATAAATCATACAGGCAA
Waffle171	GTTTTGAACGTCAAAAATGAAAATAGCAGCCT
Waffle172	TGCAGAACGTTTTTATTTTCATCGTGCGGGAG
Waffle173	GGTAAAGTAATCAGCTAA
Waffle174	AGGCAGAGGCACCGACAAAA
Waffle175	CCGCCTGCGAATTATCATCATATTCATGTAATTT
Waffle176	CTCCAAAAATTCTGGCCAACAGAGTATTAACA
Waffle177	AAAGGAACAATTGAAAAT
Waffle178	TGTATGGGATGTGAGAATAG
Waffle179	AGTGAGGCAGGCTTTGAGGACTAAATGAATTTTC
Waffle180	CGATTTAGGACGAGCACGTATAACTTATAATC
Waffle181	TGGGGTCGAGGGAGCCCC
Waffle182	GTCTATCAGGTCAAGTTTTT
Waffle183	TCTACAAATGACCGTAATGGGATAGCGAAAAACC
Waffle184	GGCAAAGATATTTCAACGCAAGGATTGAGAGA
Waffle185	TTGTTTAAGCCTTAAATCAAGATTTCGAGAACA
Waffle186	AGCAAGCCGCGCCTGTTTATCAACAATAGATA
Waffle187	AAGGAGCGAACAGTGCCACGCTGACAGTAATA
Waffle188	AAAGGGACAAAAGGCTCCAAAAGGAAGCCTTTA
Waffle189	GGCTACAGCACCGAGTAAAAGAGTGTACTATG
Waffle190	GTTGCTTTAGCTTGACGGGAAGCCGGCGAA
Waffle191	CGGCGGATGGCTATCAGGTCATTGTTGCGGGA
Waffle192	GAAGCCTTATTAGCAAAATTAAGCAATAAAGC
Waffle193	TTTGCACCCAATCCAAATAAGAAACGATTTT
Waffle194	AGTCCTGACAAGTACCGCACTCATAGTTGCTA
Waffle195	AGCAAATGTTTGCGGAACAAAGAAACCACCAG
Waffle196	ATTGTATCTCACCAGTACATCAAACGAGCCAGC
Waffle197	CACGCAAACAGCATCGGAACGAGGGTAGCAAC
Waffle198	CGTGGCGACGCCGCTACAGGGCGCGTCTCCAT
Waffle199	TCTGGAGCCGTCGGATTCTCCGTGGGAACAAA
Waffle200	CTCAGAGCTGACCCTGTAATACTTCCTGAGAG
Waffle201	TATTTATCCCAGCTACAATTTTATAAACAGG
Waffle202	TATTAAACACAAGAAAAATAATATCGTCAATAGA
Waffle203	TAATACATTTTCGACAACT
Waffle204	CGTATTAAATTGAGTAAC
Waffle205	ATTATCATAAAAATCTAAAGCATCATTTACAT
Waffle206	TGGCAGATGGTTTATCAGCTTGCTGATAGTTGCG
Waffle207	CCGACAATGATCGGTCGCTG
Waffle208	AGGCTTGCAGCCTCAGCA
Waffle209	GCGAAAGATTAACCGTTGTAGCAACCCGCCGC
Waffle210	GCTTAATGGAAAGGAAGGGGAAGAACATTAAATTT
Waffle211	TTGTTAAATCAAAATAATTC
Waffle212	GCGTCTGGCCTGAGCGAG
Waffle213	TAACAACCAAACAAGAGAATCGATTTTTTGTACCAA
Waffle214	AAACATTAATAAAGCTAAATCGGTTTTT
Waffle215	TTACCAACCAGTTACAAAATAAACAGCCATAT
Waffle216	AATTTACGTTTCCTTATCATTCCACCTGAATC
Waffle217	AGAAGTATACTAATAGATTAGAGCCCCATCCT
Waffle218	TTGAGGAATAGACTTTACAAACAAGAGGAATTT
Waffle219	GAACCTCAATTAATTTTAAAAGTTCCTTTGCC
Waffle220	GAATTTCTTCGTCTGAAATGGATTACCTTGCT
Waffle221	GGAAAAACTAAACAGCTTGATACCTTCGAGGT
Waffle222	CCAGAACACGCATAACCGATATATCAACAACC
Waffle223	TGATTAGTTTTGCGGGATCGTCACGGAGTTAA
Waffle224	GAGCGGGCGCGCGTAACCACCACATACTTCTT
Waffle225	TTTTAACCATTTTGTTAAAATTCGAGCGAAAG
Waffle226	GAGATTGAATAGGAAACGCCATCAAGCTCATT
Waffle227	GAACGGTAATCGTAAATCATCAACATTAAATGTTCCTGTA
Waffle228	TTTTCCAGAGCCTAATTTGCGCTAACGAGCGTCTTTTTTTCCAATAAT
Waffle229	CGGCTGTCAGCATGTAGAAACCAATTTTTTTAGGAG
Waffle230	CACTAACAGGTTATCTAAAATATCTTTTGAAAGGAA
Waffle231	CGAACGTTTGGCAAATCAACAGTTTTTTTCAATATC
Waffle232	TGGTCAGTAATCACCATCCCTCAATTTTTACATTTTG
Waffle233	ACGCTCAAGCTCATGGAAATACCTTTTTTTGCAACA
Waffle234	ATCGCCCAATATTACCGCCAGCCATTTTGGTAATAT
Waffle235	AGGCCGCTAACTATCGGCCTTGCTTTTTTGAGTAGA
Waffle236	AGAACTCAAATAACATCCTGCCTTTTGTGTAGCG
Waffle237	GTCACGCTGCTAGGGCGCTGGCAATTTTAATTGTAA
Waffle238	ACGTTAATTATAAGCAAATATTTATTTTAAAAACAG
Waffle239	GCCACGTTTAATCAGAAAAACCCCTTTTTTATGTACC
Waffle240	CCGGTTGAACTAGCATGTCAATCATTTT

Staples for 3-turn wells

Name	Sequence
Waffle59b	ATTCATTACGCAAGACAAAGAACGAAAATCGCGCAGAGGCGAAT
Waffle59b	TATTCATTTCAATTACTACCTGCA
Waffle60b	GATGAAACAAACATCAAGAAGAATTACC
Waffle62b	AGGCAGGTGCCCGGAATAGGTGTAGGTCAATCATAAGGGAACCG
Waffle63b	AACTGACCAACTTTGATACCTGCA
Waffle64b	GGTGTACAGACCAGGCGCATACAAGAAC
Waffle66b	GACGACGACAGGGTGGTTTTTCTTAGGCGATTAAGTTGGGTAAC
Waffle67b	GCCAGGGTTTTCCCAGTACCTGCA
Waffle68b	CGACGGCCAGTGCCAAGCTTGGGTACCG
Waffle7b	CTATAAGCACTTTTGAATACCAAGTTACCGAGAAAA
Waffle74b	AATATACACGCCAATATTTACGTGCTGCCTGAGCAAAAGAAGAT
Waffle77b	CTATAAGCACTTGAAGCGAGGCGCAGACTCACCGTA
Waffle78b	TTTGTATCCGCCAATATTTACGTGCTGCAAGAGGACAGATGAAC
Waffle81b	CTATAAGCACTTAGGGGGATGTGCTGCATTCACCAG
Waffle82b	GCGCAACTCGCCAATATTTACGTGCTGCTCACGACGTTGTAAAA
Waffle130b	TAGAAGGCTAAATAAGGCGTTAAAAAAAGCCTGTTTAGTATCAT
Waffle131b	ATGCGTTATACAAATTTACCTGCA
Waffle132b	CAACGCTCAACAGTAGGGCTTAATCCTG
Waffle134b	CAGACAATATTTTCAGGGATAGCAAGTTTCGTCACCAGTACAAA
Waffle135b	CTACAACGCCTGTAGCTACCTGCA
Waffle136b	TCATAGTTAGCGTAACGATCGGTAAAAT
Waffle138b	GGCCGATTTTGCCCCAGCAGGCGAAAAATCCCTTATAAATCAAA
Waffle139b	AGAATAGCCCGAGATATACCTGCA
Waffle140b	CAGTTTGGAACAAGAGTCCACGTGCATC
Waffle146b	AATCGCCACGCCAATATTTACGTGCTGCCTTACCAGTATAAAGC
Waffle150b	TGTCGTCTCGCCAATATTTACGTGCTGCATTCCACAGACAGCCC
Waffle154b	GAACGTGGCGCCAATATTTACGTGCTGCGGGTTGAGTGTTGTTC
Waffle159b	CTATAAGCACTTTAAGAGAATATAAAGTATTTTCGA
Waffle163b	CTATAAGCACTTCAACAGTTTCAGCGGATTTGCTAA
Waffle167b	CTATAAGCACTTTGAACCATCACCCAAAGCGATGGC
Waffle202b	TATTAAACACAAGAAAAATAATATCGTCAATAGATAATACATTT
Waffle203b	GAGGATTTAGAAGTATTACCTGCA
Waffle204b	TTCGACAACTCGTATTAAATTGAGTAAC
Waffle206b	TGGCAGATGGTTTATCAGCTTGCTGATAGTTGCGCCGACAATGA
Waffle207b	CAACAACCATCGCCCATACCTGCA
Waffle208b	TCGGTCGCTGAGGCTTGCAGCCTCAGCA
Waffle210b	GCTTAATGGAAAGGAAGGGGAAGAACATTAAATTTTTGTTAAATC
Waffle211b	AGCTCATTTTTTAACCTACCTGCA
Waffle212b	AAAATAATTCGCCGTCTGGCCTGAGCGAG
Waffle217b	CTATAAGCACTTACTAATAGATTAGAGCCCCATCCT
Waffle218b	TTGAGGAACGCCAATATTTACGTGCTGCTAGACTTTACAAACAA
Waffle222b	CCAGAACACGCCAATATTTACGTGCTGCCGCATAACCGATATAT
Waffle225b	CTATAAGCACTTATTTTGTTAAAATTCGAGCGAAAG
Waffle226b	GAAGATTGCGCCAATATTTACGTGCTGCAATAGGAACGCCATCA

Staples for 2-turn wells

Name	Sequence
Waffle4c	GACAGAATttttGATAGCAGCACGTAATACCTGCACTAT
Waffle1c	ACAGTTCAttttTTGAATCCCCGTCAAATACCTGCACTAT
Waffle16c	AAGCACTTCGCTGAGAAGAGTCAA
Waffle20c	TGTACTGGTACCTGCACTATAAGCACTTTTCTGAAACATGAAAG
Waffle21c	TTTACGTGCTGCAACAGTGCCCGTATAATGCCCTGA
Waffle24c	AAGCACTTAACTCACATTAATTGC
Waffle29c	TAGTGAATTTATCAAAATCACTTAGGTT
Waffle30c	ATAGCTTAGATTAAGACGCCAATATTTACGTGCTGCTCAGTAGC
Waffle31c	TTGCCATCGAATAACC
Waffle33c	TATTAAGAGCGTGAGACTCCCTCAGTAC
Waffle34c	ATTTCGGAACCTATTAGCCCAATA
Waffle35c	TGAATTACTTCAGTGA
Waffle37c	GTTGCGCTCACTGCCCGCTTTAATGAAT
Waffle38c	GCCTAATGAGTGAGCTGGCCAATATTTACGTGCTGCTGCTTTAA
Waffle39c	GCATCAAAGAAATTGT
Waffle62c	AGGCAGGTGCCCGGAA
Waffle63c	GACGACGACAGGGTGG
Waffle74c	TAATTACAGCGCCAATATTTACGAGCTGCCTGAGCAAAAGAAGAT
Waffle78c	TGACCTTCCGCCAATATTTACGAGCTGCAAGAGGACAGATGAAC
Waffle82c	GCAGGTCGCGGCCAATATTTACGAGCTGCTCACGACGTTGTAAAA
Waffle87c	TGATTGCTTTCAGACCGAGACAAGTACAGTAACAGTACCTTTTA
Waffle88c	AGCGAATGCGTCAGAAATAAAGAAATTGTATTTGCA
Waffle89c	ACTTAGGCTTCAGACCGAGACAAGTACAATCGGCTGATAAATTG
Waffle92c	AGCGAATGCGTCACCCCCAGCGATTATAAAAACACT
Waffle95c	CTGGCGAATTCAGACCGAGACAAGTACAGTTGGGAAGGGCGATC
Waffle96c	AGCGAATGGGTCTGTGGTGCCGGAAACCGCTTTCCG
Waffle101c	GATCGGGAGAAACAATAACGTTTCATCT
Waffle102c	GTGAGATGAATATACAAGGGAAC
Waffle103c	CACCACCCCCTACCAT
Waffle105c	TGTCGAAATCCGCGACCTGCCTCAGAAC
Waffle106c	AACGGAGATTTGTATCACGGCAAC
Waffle107c	ATTATTACGGCAAAAG
Waffle109c	GGTGCGGGGCCTCTTCGCTATCTTCACCG
Waffle110c	TTCAGGCTGCGGCAACTACGGCAAC
Waffle111c	TCAGGATTGATCGCAC
Waffle130c	TAGAAGGCTAAATAAG
Waffle134c	CAGACAATATTTTCAG
Waffle138c	GGCCGATTTTGCCCCA
Waffle145c	CTATAAGCACTTAATCATAATTACTAGATAAGAATA
Waffle146c	AATCGCCACGGCCAATATTTACGAGGTGCCTTACCAGTATAAAGC
Waffle149c	CTATAAGCACTTATGTACCGTAACACTGAGCCCAAT
Waffle150c	TGTCGTCTCGCCAATATTTACGAGGTGCTTCCACAGACAGCCC
Waffle153c	CTATAAGCACTTTGGTTCCGAAATCGGCAAATCCTG
Waffle159c	AGACGACGTTCAGACCGAGACAAGTACATAAAGTATATAAAAGT
Waffle160c	AGCGAATGCGTCTATTTAACAACGCCAACCTGATTA
Waffle164c	ATTGCGAATTCAGACCGAGACAAGTACACAACAGTTTTCAGCGGA
Waffle167c	AAGCACTATTCAACCATCACCAAAGCGATGGC
Waffle168c	AGCGAATGCGTCACTCCAACGTCAAAGGGGTCACGT
Waffle17c	ACGGACAAAAGGTAAAGTAATCAGCTAA
Waffle174c	ATTTTCGAGCCAGTAAACGGCAAC
Waffle175c	CCGGCTGCGAATTAT
Waffle177c	GTGAGAATAGAAAAGGAACAATTGAAAAT
Waffle178c	TTTGGTAAACAACTTTACGGCAAC
Waffle179c	AGTGAGGCAGGCTTTG
Waffle181c	TCAAGTTTTTTGGGGTCGAGGGAGCCCC
Waffle182c	GGGATGGCGCACTACGACGGGCAAC
Waffle183c	TCTACAAATGACCGTA
Waffle202c	TATTAAACACAAGAAA
Waffle206c	TGGCAGATGGTTTATC
Waffle210c	GCTTAATGGAAAGGAA
Waffle234b	CTATAAGCACTTATATTACCGCCAGCCAGGTAATAT
Waffle241c	TTGCTTCTGAATCCTTGAAAACATAGCG
Waffle242c	ATAAGGGTACAGTTAATGCCCCCTGCCT
Waffle243c	TATCCGGTTAAAGTGTAAAGCCTGGGGT
Waffle245c	AAAGAACGAAAATCGGCGCAGAGGCGAAT
Waffle246c	TAGGTGTAGGTCAATCATAAGGGAACCG
Waffle247c	TTTTTCTTAGGCGATTAAGTTGGGTAAC
Waffle248c	GCGTTAAAAAAAGCCTGTTTAGTATCAT
Waffle249c	GGATAGCAAGTTTCGTCACCAGTACAA
Waffle249c	GCAGGGGAAAAATCCCTTATAAATCAAA
Waffle250c	AATAATATCGTCAATAGATAATACATTT
Waffle251c	AGCTTGCTGATAGTTGCGCCGACAATGA
Waffle252c	GGGAAGAACATTAAATTTTTTGTTAAATC
Waffle253c	ATCAAAATCGTAGATTTTTTCGGTTTAAC
Waffle254c	AATACACTCCAAGCGCGAAACAAAGTAC
Waffle255c	TCCAGCCAAGGCAAAGGGCCATTCGCCA
Waffle256c	ATCATATTCATGTAATTTAGGCAGAGGC
Waffle257c	AGGACTAAATGAATTTTCTGTATGGGAT
Waffle258c	ATGGGATAGCGAAAAACCGTCTATCAGG

Table S2. Counts for Figure 2b.

	2-turns	3-turns	4-turns
No SA	4	11	4
1 x SA	130	196	112
2 x SA	6	73	164
Sum	140	280	280

Table S3. Counts for Figure 2d.

	2-turns	3-turns	4-turns
No IgG	66	136	196
1 x IgG	239	470	410
2 x IgG	0	4	4
Sum	305	610	610