

Supplementary Figure S5: Nucleotide sequence alignment of α -gliadin genes from the B genomes of hexaploid wheat Chinese Spring and wild emmer wheat

Ta-alpha-B14	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCACCACAA
Ta-alpha-B15	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCATGGC-----GACCACCACCACAA
Ta-alpha-B16	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCACCACAA
Ta-alpha-B17	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCACCACAA
Ta-alpha-B18	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCACCACAA
Ta-alpha-B11	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCACCACAA
Ta-alpha-B12	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCACCACAA
Ta-alpha-B13	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCACCACAA
Ta-alpha-B23	ATGAAGTCATTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCGCCACAA
Td-alpha-B15	ATGAAGTCCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCGCCACAA
Td-alpha-B10	ATAAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGT-----GACCACCGCCACTA
Ta-alpha-B21	ATGAACCTTCTCCTTGCCCTCGCCCTCCTTGCTATCGTGGC-----GACCACCGCCACAA
Td-alpha-B9	-----GCCCTCCTTGCTATCGTGGC-----GACCACCGCCACAA
Ta-alpha-B20	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCATGGCAATGCGACCACCGCCACAA
Td-alpha-B8	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCGCCACAA
Td-alpha-B7	ATGAAGACCTTTCTCATCCTTGCCCTCCTTTCTATCGTGGC---GCGACCACCGCCACAA
Ta-alpha-B19	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGCGATGCGACCACCGCCACAA
Ta-alpha-B1	ATGAAGACCTTTCTCATCCTTTCCCTCCTTGCTATCGTGGC-----GACCACTGCAACAA
Ta-alpha-B3	ATGAAGACCTTTCTCATCCTTTCCCTCCTTGCTATCGTGGC-----GACCACTGCCACAA
Td-alpha-B1	ATGAAGACCTTTCTCATCCTTTCCCTCCTTGCTATCGTGGC-----GACCACTGCCACAA
Td-alpha-B2	ATGAAGACCTTTCTCATCCTTTCCCTCCTTGCTATCGTGGC-----GACCACCGCCACAA
Td-alpha-B3	ATGAAGACCTTTCTCATCCTTTCCCTCCTTGCTATCGTGGC-----GACCACCGCCACAA
Td-alpha-B4	ATGAAGACCTTTCTCATCCTTTCCCTCCTTGCTATCGTGGC-----GACCACCGCGACAA
Ta-alpha-B2	ATGAAGACCTTTCTCATCCTTTCCCTCCTTGCTATCGTGGC-----GACCACTCCAACAA
Ta-alpha-B7	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCGCCACAA
Ta-alpha-B10	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCGCCACAA
Ta-alpha-B9	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCGCCACAA
Ta-alpha-B6	ATGAAGACCTTTCTCATCCTTGCCCTC-----GTGGC-----GACCACCGCCACAA
Ta-alpha-B8	ATGAAGACCTTTCTCATCCTTGCCCTC-----GTGGC-----GACCACCGCCACAA
Td-alpha-B6	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCGCCACAA
Td-alpha-B5	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGT-----GACCACCGCCACAA
Td-alpha-B13	ATGAAGTCCTTTCTCATCCTTGCCCTCCTTGCTATCGTGGC-----GACCACCGCCACAA
Ta-alpha-B22	ATGAAGACCTTTCTCATCCTTGCCCTCCTTGCTATCGCGGT-----GACCACCGCCACTA
Ta-alpha-B14	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Ta-alpha-B15	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Ta-alpha-B16	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Ta-alpha-B17	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Ta-alpha-B18	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Ta-alpha-B11	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Ta-alpha-B12	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Ta-alpha-B13	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Ta-alpha-B23	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Td-alpha-B15	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Td-alpha-B10	CTGCAGTGAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Ta-alpha-B21	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Td-alpha-B9	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Ta-alpha-B20	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAACCAGAAAAATCCATCTCAGCAACAACCAC
Td-alpha-B8	CTGCAGTTAGAGTTCTAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Td-alpha-B7	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Ta-alpha-B19	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCACAAAATCCATCTCAGCAACAACCAC
Ta-alpha-B1	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCCGCAAAAATCCATCTCAGCAACAACCAC
Ta-alpha-B3	CTGCAGTTAGATTTCCAGTGCCACAATTGCAGCCGCAAAAATCCATCTCAGCAACAACCAC
Td-alpha-B1	CTGCAGTTAGAGTTCCAGTGCCACAATTGCAGCGGCAAAAATCCATCTCAACAACAACCAC

Ta-alpha-B21	CAGG-----GCAGCAATAACCATTTTCGACCACAACAGCCATATC-----
Td-alpha-B9	CAGG-----GCAGCAATAACCATATCGACCACAACAGCCATATC-----
Ta-alpha-B20	CAGG-----GCAGCAATAACCATTTTCGACCACAACAGCCATATC-----
Td-alpha-B8	CAGG-----GCAGCAATAACCATTTTCGACCACAACAGCCATATC-----
Td-alpha-B7	CAGG-----GCAGCAATAACCATTTTCGACCACAACAGCCATATC-----
Ta-alpha-B19	-----TAACCATTTTCGACCACAACAACCATATC-----
Ta-alpha-B1	CACAACAACCATATCCGCAGCCGCAACCATTTCCATCACAACAACCATTTTC-----
Ta-alpha-B3	CACAACAGCCATATCCGCAGCCGCAACCATTTCCATCACAACAACCATTTGC-----
Td-alpha-B1	CACAACAGCCATATCCGCAGCCGCAACCATTTCCATCACAACAACCATTTTC-----
Td-alpha-B2	CACAACAGCCATATCCGCAGCCGCAACCATTTCCATCACAACAACCATTTTC-----
Td-alpha-B3	CACAACAGCCATATCCGCAGCCGCAACCATTTCCATCACAACAACCATTTTC-----
Td-alpha-B4	CACAACAGCCATATCCGCAGCCGCAA---TTTCCATCACAACAACCATTTTC-----
Ta-alpha-B2	CACAACAGCCATATCCGCAGCCGCAACCATTTCCATCACAACAACCATTTGC-----
Ta-alpha-B7	CACAACAGCCATATCCGCAGCCGCAACCATTTCCATCACAACAACCATATCTGCAACTGC
Ta-alpha-B10	CACAACAGCCATATCCGCAGCCGCAACCATTTCCATCACAACAACCATATCTGCAACTGC
Ta-alpha-B9	CACAACAGCCATATCCGCAGCCGCAACCATTTCCATCACAACAACCATATCTGCAACTGC
Ta-alpha-B6	CACAACAGCCATATCCGCAGCCGCAACCATTTCCATCACAACAACCATATCTGCAGCTGC
Ta-alpha-B8	CACAACAGCCATATCCGCAGCCGCAACCATTTCCATCACAACAACCATATCTGCAGCTGC
Td-alpha-B6	CACAACAGCCATATCCGCAACCGCAACCACTTCCATCACAACAACCATATCTGCAGCTGC
Td-alpha-B5	CACAACAGCCATATCCGCAGCCGCAACCATTTCCATCACAACAACCATATCTGCAGCTGC
Td-alpha-B13	CAGG-----GCAGCAGCAACCATTTCCACCACAACAGCCATATC-----
Ta-alpha-B22	CAGG-----GCAGCAACAACCATTTCCACCACAACAGCCATATC-----

Ta-alpha-B14	-----CGCAGCCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAACCAT
Ta-alpha-B15	-----CGCAGCCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAACCAT
Ta-alpha-B16	-----CGCAGCCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAACCAT
Ta-alpha-B17	-----CGCAGCCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAACCAT
Ta-alpha-B18	-----CGCAGCCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAACCAT
Ta-alpha-B11	-----CGCAGCCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAACCAT
Ta-alpha-B12	-----CGCAGCCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAACCAT
Ta-alpha-B13	-----CGCAGCCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAACCAT
Ta-alpha-B23	-----CGCAGCCGCAACCATTTTCTGCCACAACCTACCATTTCCGCAGCCGCAACCAT
Td-alpha-B15	-----CGCAGCCGCAACCATTTCCGCCACAACCTACCATTTCCGCAGCCGCAACCAT
Td-alpha-B10	-----CGCAGCCGCAACCATTTCCACCACAACCTACCATATCTGCAGCCGCAACCAT
Ta-alpha-B21	-----CGCAGCCGCAACCTATTTCTTCCAAAACCTACCATATCCGCAGCCGCAACCAT
Td-alpha-B9	-----CGCAGCCGCAACCATTTTCTTCCAAAACCTACCATATCCGCAGCCGCAACCAT
Ta-alpha-B20	-----CGCAGCCGCAACCATTTTCTTCCACAACCTACCATGTCCGCAACCGCAACCAT
Td-alpha-B8	-----CGCAGCCGCAACCATTTTCTTCCACAACCTACCATGTCCGCAACCGCAACCAT
Td-alpha-B7	-----CACAGCCGCAACCATTTTCTTCCACAACCTACCATGTCCGCAACCGCAACCAT
Ta-alpha-B19	-----CACAGCCGCAACCATTTTCTTCCACAACCTACCATGTCCGCAACCGCAACCAT
Ta-alpha-B1	-----TGCAGCCGCAACCATTTTCTGCTACAACCTACCATATCCGCAGCCGCAACCAT
Ta-alpha-B3	-----CGCAACCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAACCAT
Td-alpha-B1	-----CGCTGCCGCAACCATTTTCTGCCACAACCTACCATATGCGCAGCCGCAACCAT
Td-alpha-B2	-----CGCAGCCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAACCAT
Td-alpha-B3	-----CGCAGCCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAACCAT
Td-alpha-B4	-----CGCAGCCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAACCAT
Ta-alpha-B2	-----CGCAACGGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAACCAT
Ta-alpha-B7	AACCATTTCCGCAGCCGCAACCATTTCCGCCACAACCTACCATATCCGCAGCCGCAATCAT
Ta-alpha-B10	AACCATTTCCGCAGCCGCAACCATTTCCGCCACAACCTACCATATCCGCAGCCGCAATCAT
Ta-alpha-B9	AACCATTTCCGCAGCCGCAACCATTTCCGCCACAACCTACCATATCCGCAGCCGCAATCAT
Ta-alpha-B6	AACCATTTCCGCAGCCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAATCAT
Ta-alpha-B8	AACCATTTCCGCAGCCGCAACCATTTTCTGCCACAACCTACCATATCCGCAGCCGCAATCAT
Td-alpha-B6	AACCATTTCCGCAGCCGCAACCATTTCCGCCACAACCTACCATATCCGCAGCCGCAATCAT
Td-alpha-B5	AACCATTTCCGCAGCCGCAACCATTTCCGCCACAACCTACCATATCCGCAGCCGCAATCAT
Td-alpha-B13	-----CGCAGCCGCAACCATTTTCCGCCACAACCTACCATTTCCGCAGCCGCAACCAT
Ta-alpha-B22	-----CGCAGCCGCAACCATTTTCCACCACAACCTACCATATCTGCAGCCGCAACCAT

Ta-alpha-B14	TTCCACCACAACAATCATATCCACAACCACAACCACAATATCCGCAACCACAACAAC---
Ta-alpha-B15	TTCCACCACAACAATCATATCCACAACCACAACCACAATATCCGCAACCACAACAAC---

[illegible]

Ta-alpha-B14	-----ATCCTTCAACAAATTCTGCAACAACAAC---TGA
Ta-alpha-B15	-----ATCCTTCAACAAATTCTGCAACAACAAC---TGA
Ta-alpha-B16	-----ATCCTTCAACAAATTCTGCAACAACAAC---TGA
Ta-alpha-B17	-----ATCCTTCAACAAATTCTGCAACAACAAC---TGA
Ta-alpha-B18	-----ATCCTTCAACAAATTCTGCAACAACAAC---TGA
Ta-alpha-B11	-----ATCCTTCAACAAATTCTGCAACAACAAC---TGA
Ta-alpha-B12	-----ATCCTTCAACAAATTCTGCAACAACAAC---TGA
Ta-alpha-B13	-----ATCCTTCAACAAATTCTGCAACAACAAC---TGA
Ta-alpha-B23	-----ATCCTTCAACAAATTCTGCAACAACAAC---TGA
Td-alpha-B15	-----ATCCTTCAACAAATTCTGCAACAACAAC---TGA
Td-alpha-B10	-----ATCCTTCAACAAATTCTGCAACAACAAC---TGA
Ta-alpha-B21	-----ATCCTTCAACAAATTCTGCAACAACAAC---TGA
Td-alpha-B9	-----ATCCTTCAACAAATTCTGCAACAACAAC---TGA
Ta-alpha-B20	-----ATCCTTCAACAAATTCTACAAAAACAAC---TGA
Td-alpha-B8	-----ATCATTCACAAATTCTACAACAACAAC---TGA
Td-alpha-B7	-----ATCCTTCAACAAATTCTACAACAACAAC---TGA
Ta-alpha-B19	-----ATCCTTCAACAAATTCTACAACAACAAC---TGA
Ta-alpha-B1	-----ATCCTTCAACAAATTCTGCAACAACAACAAC---TGA

Ta-alpha-B3	-----ATCCTTCAACAAATTTCTGCAACAACAACAACACTGA
Td-alpha-B1	-----ATCCTTCAACAAATTTCTTCAACAAATTTCTGCAACAACAACAACACTGA
Td-alpha-B2	AACAACAACAACAACAAATCCTTCAACAAATTTCTTCAACAACTTTTGGCAACAACAACAACACTGA
Td-alpha-B3	-----ATCCTTCAACAAATTTCTTCAACAACTTTTGGCAACAACAACAACACTGA
Td-alpha-B4	-----CAACAAATCCTTCAACAAATTTCTACAACAACAACAACACTGA
Ta-alpha-B2	-----ATCCTTCAACAAATTTCTGCAACAACAACAACACTAA
Ta-alpha-B7	-----ATCCTTCAACAAATTTTGGCAACAACAAC---TGA
Ta-alpha-B10	-----ATCCTTCAACAAATTTTGGCAACAACAAC---TGA
Ta-alpha-B9	-----ATCCTTCAACAAATTTTGGCAACAACAAC---TGA
Ta-alpha-B6	-----ATCCTTCAACAAATTTTGGCAACAACAAC---TGA
Ta-alpha-B8	-----ATCCTTCAACAAATTTTGGCAACAACAAC---TGA
Td-alpha-B6	-----ATCCTTCAACAAATTTTGGCAACAACAAC---TGA
Td-alpha-B5	-----ATCCTTCAACAAATTTTGGCAACAACAAC---TGA
Td-alpha-B13	-----
Ta-alpha-B22	-----ATCCTTCAACAAATTTCTGCAACAACAAT---TGA

Ta-alpha-B14	TTCCATGCAGGGGATGTCGTCTTGCAACAACCCAATATAGCACATGCAAGCTCAAAAAGTAT
Ta-alpha-B15	TTCCATGCAGGGGATGTCGTCTTGCAACAACCCAATATAGCACATGCAAGCTCACAAGTAT
Ta-alpha-B16	TTCCATGCAGGGGATGTCGTCTTGCAACAACCCAATATAGCACATGCAAGCTCACAAGTAT
Ta-alpha-B17	TTCCATGCAGGGGATGTCGTCTTGCAACAACCCAATATAGCACATGCAAGCTCACAAGTAT
Ta-alpha-B18	TTCCATGCAGGGGATGTCGTCTTGCAACAACCCAATATAGCACATGCAAGCTCACAAGTAT
Ta-alpha-B11	TTCCATGCAGGGGATGTCGTCTTGCAACAACCCAATATAGCACATGCAAGCTCAAAAAGTAT
Ta-alpha-B12	TTCCATGYAGGGGATGTCGTCTTGCAACAACCCAACATAGCACATGCAAGCTCACAAGTAT
Ta-alpha-B13	TTCCATGTAGGGGATGTCGTCTTGCAACAACCCAACATAGCACATGCAAGCTCACAAGTAT
Ta-alpha-B23	TTCCATGCAAGGGATGTCGTCTTGCAACAACCCAACATAGCACATGCTAGCTCACAAGTAT
Td-alpha-B15	TTCCATGCAGGGGATGTCGTCTTGCAACAACCCAACATAGCACATGCTAGCTCACAAGTAT
Td-alpha-B10	TTCCATGCAGGGGATGTCGTCTTGCAACAACCCAACATAGCACATGCTAGCTCACAAGTAT
Ta-alpha-B21	TTCCATGCAGGGGATGTCGTCTTGCAACAACCCAACATAGCACATGCAAGCTCACAAGTAT
Td-alpha-B9	TTCCATGCAGGGGATGTCGTCTTGCAACAACCCAACATAGCACATGCAAGCTCACAAGTAT
Ta-alpha-B20	TTCCATGCAGGGGATGTCGTCTTGCAACAACCCAACATAGCACATGCAAGCTCACAAGTAT
Td-alpha-B8	TTCCATGCAGGGGATGTCGTCTTGCAACAACCCAACATAGCACATGCAAGCTCACAAGTAT
Td-alpha-B7	TTCCATGCAGGGGATGTCGTCTTGCAACAACCC-----
Ta-alpha-B19	TTCCATGCAGGGGATGTCGTCTTGCAACAACCC-----
Ta-alpha-B1	TTCCATGCAGGGGATGTCGTCTTGCAACAACACAACATAGCGCATGCAAGCTCACAAGTAT
Ta-alpha-B3	TTCCATGCAGGGGATGTCGTCTTGCAACAACACAACATAGCGCATGCAAGCTCACAAGTAT
Td-alpha-B1	TTCCATGCAGGGGATGTCGTCTTGCAACAACACAACATAGCACATGCAAGCTCACAAGTAT
Td-alpha-B2	TTCCATGCAGGGGATGTGGTCTTGCAACAACACAACATAGCGCATGCAAGCTCACAAGTAT
Td-alpha-B3	TTCCATGCAGGGGATGTGGTCTTGCAACAACACAACATAGCGCATGCAAGCTCACAAGTAT
Td-alpha-B4	TTCCATGCAGGGGATGTCGTCTTGCAACAACACAACATAGCGCATGCAAGCTCACAAGTAT
Ta-alpha-B2	TTCCATGCAGGGGATGTCGTCTTGCAACAACACAACATAGCGCATGCAAGCTCACAAGTAT
Ta-alpha-B7	TTCCATGCAGGGGATGTTGTCTTGCAACAACACAACATAGCGCATGCAAGCTCACAAGTTT
Ta-alpha-B10	TTCCATGCAGGGGATGTTGTCTTGCAACAACACAACATAGCGCATGCAAGCTCACAAGTTT
Ta-alpha-B9	TTCCATGCAGGGGATGTTATCTTGCAACAACACAACATAGCGCATGCAAGCTCACAAGTTT
Ta-alpha-B6	TTCCATGCAGGGGATGTTATCTTGCAACAACACAACATAGCGCATGCAAGCTCACAAGTTT
Ta-alpha-B8	TTCCATGCAGGGGATGTTGTCTTGCAACAACACAACATAGCGCATGCAAGCTCACAAGTTT
Td-alpha-B6	TTCCATGCAGGGGATGTTGTCTTGCAACAACACAACATAGAGCATGCAAGCTCACAAGTTT
Td-alpha-B5	TTCCATGCAGGGGATGTTGTCTTGCAACAACACAACATAGCGCATGCAAGCTCACAAGTTT
Td-alpha-B13	-----
Ta-alpha-B22	TTCCATGCAGGGGATGTCATCTTGCAACAACCCAACATAGCACATGCAAGCTCACAAGTAT

Ta-alpha-B14	CGCAACAAAAGT---TACCAACTGTTGCAACAATTATGTTGTGTCAGCAACTGTGGCAGACCC
Ta-alpha-B15	CGCAACAAAAGT---TACCAACTGTTGCAACAATTATGTTGTGTCAGCAACTGTGGCAGACCC
Ta-alpha-B16	CGCAACAAAAGT---TACCAACTGTTGCAACAATTATGTTGTGTCAGCAACTGTGGCAGACCC
Ta-alpha-B17	CGCAACAAAAGT---TACCAACTGTTGCAACAATTATGTTGTGTCAGCAACTGTGGCAGACCC
Ta-alpha-B18	CGCAACAAAAGT---TACCAACTGTTGCAACAATTATGTTGTGTCAGCAACTGTGGCAGACCC
Ta-alpha-B11	CGCAACAAAAGT---TACCAACTGTTGCAACAATTATGTTGTCTGCAACTGTGGCAGACCC
Ta-alpha-B12	YGCAACAAAAGT---TACCAACTGTTGCAACAATTATGTTGTGTCAGCAACTGTGGCAGACCC
Ta-alpha-B13	CGCAACAAAAGT---TACCAACTGTTGCAACAATTATGTTGTGTCAGCAACTGTGGCAGACCC
Ta-alpha-B23	CGCAACAAAAGT---TACCAACTGTTGCAACAATTATGTTGTGTCAGCAATTGTGGCAGACCC

Td-alpha-B15	CGCAACAAAAGT---TACCAACTGTTGCAACAATTATGTTGTGTCAGCAATTGTGGCAGACCC
Td-alpha-B10	CGCAACAAAAGT---TACCAACTGTTGCAACAATTATGTTGTGTCAGCAATTGTGGCAGACCC
Ta-alpha-B21	CTCAACAAAAGT---TACCATCTATTGCAACAATTATGTTGTGTCAGCAACTGTGGCAGACCC
Td-alpha-B9	CTCAACAAAAGT---TACCATCTATTGCAATAATTATGTTGTGTCAGCAACTGTGGCAGACCC
Ta-alpha-B20	CACAACAAAAGT---TACCATCTGTTGCAACAATTATGTTGTTAGCAACTGTGGCAGACCC
Td-alpha-B8	CGCAACAAAAGT---TACCATCTGTTGCAACAATTATGTTGTGTCAGCAACTGTGGCAGACCC
Td-alpha-B7	-----
Ta-alpha-B19	-----
Ta-alpha-B1	TGCAACAAAAGTAGTTACCAACTGTTGCAACAATTATGTTGTGTC AACGGTTGTGGCAGATCC
Ta-alpha-B3	TGCAACAAAAGTAGTTACCAACTGTTGCAACAATTATGTTGTGTC AACGGTTTGTGGCAGATCC
Td-alpha-B1	TGCAACAAAAGTAGTTACCAACTGTTGCAACAATTATGTTGTGTC AACGGTTGTGGCAGATCC
Td-alpha-B2	TGCAACAAAAGTAGTTACCAACTGTTGCAACAATTATGTTGTGTC AACGGTTGTGGCAGATCC
Td-alpha-B3	TGCAACAAAAGTAGTTACCAACTGTTGCAACAATTATGTTGTGTC AACGGTTGTGGCAGATCC
Td-alpha-B4	TGCAACAAAAGTAGTTACCAACTATTGCAACAATTATGTTGTGTC AACGGTTGTGGCATATCC
Ta-alpha-B2	TGCAACAAAAGTAGTTACCAACTGTTGCAACAATTATGTTGTGTC AACGGTTGTGGCAGATCC
Ta-alpha-B7	TGCAACAAAAGTACTTACCAGCTATTGCAACAATTGTGTTGTGTC AACCAACTGTTGCAGATCC
Ta-alpha-B10	TGCAACAAAAGTACTTACCAGCTATTGCAACAATTGTGTTGTGTC AACCAACTGTTGCAGATCC
Ta-alpha-B9	TGCAACAAAAGTACTTACCAGCTATTGCAACAATTGTGTTGTGTC AACCAACTGTTGCAGATCC
Ta-alpha-B6	TGCAACAAAAGTACTTACCAGCTATTGCAACAATTGTGTTGTGTC AACCAACTGTTGCAGATCC
Ta-alpha-B8	TGCAACAAAAGTACTTACCAGCTATTGCAACAATTGTGTTGTGTC AACCAACTGTTGCAGATCC
Td-alpha-B6	TGCAACAAAAGTTCTTACCAGCTATTGCAACAATTATGTTGTGTC AACCAATTGTTGCAGATCC
Td-alpha-B5	TGCAACAAAAGTACTTACCAGCTATTGCAACAATTGTGTTGTGTC AACCAACTGTTGCAGATCC
Td-alpha-B13	-----
Ta-alpha-B22	CGCAACAAAAGT---TACCAACTTTTGCAACAATTATGTTGTGTCAGCAACTGTGGCAGACCC

Ta-alpha-B14	CCGAGCAGTCACGGTGCCAAGCCATCCACAATGTCATTCATGCTATTATTTTGCATCAAC
Ta-alpha-B15	CCGAGCAGTCACGGTGCCAAGCCATCCACAATGTCATTCATGCTATTATTTTGCATCAAC
Ta-alpha-B16	CCGAGCAGTCACGGTGCCAAGCCATCCACAATGTCATTCATGCTATTATTTTGCATCAAC
Ta-alpha-B17	CCGAGCAGTCACGGTGCCAAGCCATCCACAATGTCATTCATGCTATTATTTTGCATCAAC
Ta-alpha-B18	CCGAGCAGTCACGGTGCCAAGCCATCCACAATGTCATTCATGCTATTATTTTGCATCATC
Ta-alpha-B11	CCGAGCAGTCACGGTGCCAAGCCATCCACAATGTCATTCATGCTATTATTTTGCATCATC
Ta-alpha-B12	CCGAGCAGTCACGGTGCCAAGCCATCCACAATGTCATTCATGCTATTATTTTGCATCAAC
Ta-alpha-B13	CCGAGCAGTCACGGTGCCAAGCCATCCACAATGTCATTCATGCTATTATTTTGCATCAAC
Ta-alpha-B23	CCGAACAGTCACGGTGCCAAGCCATCCACAATGTCGTGCATGCTATTATTCTGCATCATC
Td-alpha-B15	CCGAGCAGTCACGGTGCCAAGCCATCCACAATGTCGTGCATGCTATTATTCTGCATCA--
Td-alpha-B10	CCGAGCAGTCACGGTGCCAAGCCATCCACAATGTCGTGCATGCTATTATTCTGCATCA--
Ta-alpha-B21	CCGAGCTGTTCACAGTGCCAAGTCATCCACAATGTCGTTTCATGCTATTATTCTGCATCATC
Td-alpha-B9	CCGAGCTGTTCATGGTGCCAAGTCATCCACAATGTCGTTTCATGCTATTATTCTGCATCATT
Ta-alpha-B20	CCGAGCTGTTCACGGTGCCAAGTCATCCACAATGTCGTTTCATGCTATTATTCTCCATCAAC
Td-alpha-B8	CCGAGCTGTTCACGGTGCCAAGTCATCCACAATGTCGTTTCATGCTATTATTCTCCATCAAC
Td-alpha-B7	-CGAGCTGTTCACGGTGCCAAGTCATCCACAATGTCGTTTCATGCTATTATTCTCCATCAAC
Ta-alpha-B19	-CGAGCTGTTCACGGTGCCAAGTCATCCACAATGTCGTTTCATGCTATTATTCTCCATCAAC
Ta-alpha-B1	CCGAGCAGTCGCGGTGCCAAGCCATCCACAATGTCGTTTCATGCTATTATTCTGCAACAAC
Ta-alpha-B3	CCGAGCAGTCGCGGTGCCAAGCCATCCACAATGTCGTTTCATGCTATTATTCTGCAACAAC
Td-alpha-B1	CCGAGAAGTCGCGGTGCCAAGCCATCCACAATGTCGTTTCATGCTATTATTCTGCAACAAC
Td-alpha-B2	CCGAGCAGTCGCGGTGCCAAGCCATCCACAATGTCGTTTCATGCTATTATTCTGCAACAAC
Td-alpha-B3	CCGAGCAGTCGCGGTGCCAAGCCATCCACAATGTCGTTTCATGCTATTATTCTGCAACAAC
Td-alpha-B4	CCGAGCAGTCGCGGTGCCATGCCATCCACAATGTCGTTTCATGCTATTATTCTACAACAAC
Ta-alpha-B2	CCGAGCAGTCGCGGTGCCAAGCCATCCACAATGTTGTTTCATGCTATTATTCTGCAACAAC
Ta-alpha-B7	CTGAGCAGTCGAGGTGCCAAGCCATCCATAATGTTGTCATGCTATTATTATGCATCAAC
Ta-alpha-B10	CTGAGCAGTCGAGGTGCCAAGCCATCCATAATGTTGTCATGCTATTATTATGCATCAAC
Ta-alpha-B9	CTGAGCAGTCGAGGTGCCAAGCCATCCATAATGTTGTCATGCTATTATTATGCATCAAC
Ta-alpha-B6	CTGAGCAGTCGAGGTGCCAAGCCATACATAATGTTGTTTCATGCTATTATTATGCATCAAC
Ta-alpha-B8	CTGAGCAGTCGAGGTGCCAAGCCATCCATAATGTTGTTTCATGCTATTATTATGCATCAAC
Td-alpha-B6	CTGAGCAGTCGAGGTGCCAAGCCATCCATAATGTTGTCATGCTATTATTATGCATCAAC
Td-alpha-B5	CTGAGCAGTTGAGGTGCCAAGCCATCCATAATGTTGTCATGCTATTATTCTGCATCATC
Td-alpha-B13	-----
Ta-alpha-B22	CTGAGCAGTCACGGTGCCAAGCCATCCACAATGTCGTTTCATGCTATTATTCTGCATCAAC

[illegible]

Ta-alpha-B2	-----
Ta-alpha-B7	TGCAACAACAACGACAACAAC-----
Ta-alpha-B10	TGCAACAACAATGACAACAAC-----
Ta-alpha-B9	TGCATCAACAACGACAACAAC-----
Ta-alpha-B6	AACAACAACAACAACAACAACAACAAC-----
Ta-alpha-B8	AACAACAACAACAACAACAAC-----
Td-alpha-B6	AACTGCAACAACAACAACAAC-----
Td-alpha-B5	AACAACAAC-----
Td-alpha-B13	-----
Ta-alpha-B22	AACAACAACAACAACAACGACGACAACAACAACGACAACAACAACAACGACAACAAC

Ta-alpha-B14	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAGCAACAATATCCATCAGGCC
Ta-alpha-B15	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAGCAACAATATCCATCAGGCC
Ta-alpha-B16	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAGCAACAATATCCATCAGGCC
Ta-alpha-B17	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAGCAACAATATCCATCAGGCC
Ta-alpha-B18	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAGCAACAATATCCATCAGGCC
Ta-alpha-B11	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAGCAACAATATCCATCAGGCC
Ta-alpha-B12	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAGCAACAATATCCATCAGGCC
Ta-alpha-B13	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAGCAACAATATCCATCAGGCC
Ta-alpha-B23	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAACAATAATATCCATCGGGCC
Td-alpha-B15	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAACAACAATATCCATCGGGCC
Td-alpha-B10	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAACAACAATATACATCGGGCC
Ta-alpha-B21	-----CGTCGAGCCAGGTCTTCTACCAGCAGCCTCAGCAACAATATCCATCAGGCC
Td-alpha-B9	-----CGTCGAGCCAGGTCTTCTACCAGCAGCCTCAGCAACAATATCCATCAGGCC
Ta-alpha-B20	-----CGTCGAGCCAGGTCTTCTAGCAGCAACCTCAGCAACAATATCCATCAGGCC
Td-alpha-B8	-----CGTCGAGCCAGGTCTTCTAGCAGCAGCCTCAGCAACAATATCCATCAGGCC
Td-alpha-B7	-----CATCGAGCCAGGTCTTCTACCAGCAGCCTCAGCAATAATATCCATCAGGCC
Ta-alpha-B19	-----CGTCGAGCCAGGTCTTCTACCAGCAGCCTCAGCAACAATATCCATCAGGCC
Ta-alpha-B1	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAGCAACAATATCCATCGGGCC
Ta-alpha-B3	AACAACAACCGTCGAGCCAGGTCTCCTACCAGCAGCCTCAGCAACAATATCCATCGGGCC
Td-alpha-B1	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAGCAACAATATCCATCGGGCC
Td-alpha-B2	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAGCAACAATATCCATCGGGCC
Td-alpha-B3	-----CGTCGAGCCAGATCTCCCTCTAGCAGCCTCAACAACAATATCCATCAGGCC
Td-alpha-B4	-----CGTCGAGCCAGATCTCCCTCCAGCAGCCTCAACAACAATATCCATCAGGCC
Ta-alpha-B2	-----CGTCGAGCCAGGTCTCCTACCAGCAGCCTCAGCAACAATATCCATCGGGCC
Ta-alpha-B7	-----CGTCGAGCCAGGTCTCCTTCCAACAGCCTCAGCAGCAATATCCATCAAGCC
Ta-alpha-B10	-----CGTCGAGCCAGGTCTCCTTCCAACAGCCTCAGCAGCAATATCCATCAAGCC
Ta-alpha-B9	-----CATCGAGCCAGGTCTCCTTCCAACAGCCTCAGCAGCAATATCCATCAAGCC
Ta-alpha-B6	-----CGTCAAGCCAGGTCTCCTTCCAACAGCCTCAGCAGCAATATCCATCAAGCC
Ta-alpha-B8	-----CGTCAAGCCAGGTCTCCTTCCAACAGCCTCAGCAGCAATATCCATCAAGCC
Td-alpha-B6	-----CGTCGAGCCAGGTCTCCTTCCAACAGCCTCAGCAGCAATATCCATCAAGCC
Td-alpha-B5	-----CATCGAGCCAGGTCTCCTTCCAACAGCCTCAGCAGCAATATCCATCAAGCC
Td-alpha-B13	-----AGCCAGTTCTCCTACCAGCAGCCCCATAACCAATATCCATCAGGCC
Ta-alpha-B22	AACAACGACCGTCGAGCGATGTCTCCTACCAGCAGCCTCAGCAAAAATATCCATCAGGCC

Ta-alpha-B14	AGGGCTTCTTCCAGCCATCTCAGCAAAAACCCACAGGCCAGGGCTTTGTCCAACCTCAGC
Ta-alpha-B15	AGGGCTTCTTCCAGCCATCTCAGCAAAAACCCACAGGCCAGGGCTTTGTCCAACCTCAGC
Ta-alpha-B16	AGGGCTTCTTCCAGCCATCTCAGCAAAAACCCACAGGCCAGGGCTTTGTCCAACCTCAGC
Ta-alpha-B17	AGGGCTTCTTCCAGCCATCTCAGCAAAAACCCACAGGCCAGGGCTTTGTCCAACCTCAGC
Ta-alpha-B18	AGGGCTTCTTCCAGCCATCTCAGCAAAAACCCACAGGCCAGGGCTTTGTCCAACCTCAGC
Ta-alpha-B11	AGGGCTTCTTCCAGCCATCTCAGCAAAAACCCACAGGCCAGGGCTTTGTCCAACCTCAGC
Ta-alpha-B12	AGGGCTCGTTCCAGCCATCTCAGCAAAAACCCACAGGCCAGGGCTTTGTCCAACCTCAGC
Ta-alpha-B13	AGGGCTCGTTCCAGCCATCTCAGCAAAAACCCACAGGCCAGGGCTTTGTCCAACCTCAGC
Ta-alpha-B23	AGGGCTCCTTCCAGCCATCTCAGCAAAAACCCACAGGCCAGGGCTTTGTCCAACCTCAAC
Td-alpha-B15	AGGGCTCCTTCCAGCCATCTCAGCAAAAACCCACAGGCCAGGGCTTTGTCCAACCTCAAC
Td-alpha-B10	AGGGCTCCTTCCAGCCATCTCAGCAAAAACCCACAGGCCAGGGCTTTGTCCAACCTCAAC
Ta-alpha-B21	ACGGCTCCTTCCAGCCATCTCAGCAAAAACCCACAGACCCAGGGCTTTGTCCAACCTCAGC
Td-alpha-B9	ACGGCTCCTTCCAGCCATCTCAGCAAAAACCCACAGACCCAGGGCTTTGTCCAACCTCAGC

Ta-alpha-B20	AGGGCTCCTTCCAGCCATCTGAGCAAAACCCACAGGCCGATGGCTTTGTCCAACCTCAGC
Td-alpha-B8	AGGGCTCCTTCCAGCCATCTCAGCAAAACCCACAGGCCCATGGCTTTGTCCAACCTCAGC
Td-alpha-B7	AGGGCTCCTTCCATCCATCTCAGCAAAACCCACAGGCCCATGGCTTTGTCCAACCTCAGC
Ta-alpha-B19	AGGGTTCCCTTCCAGCCATCTCAGCAAAACCCACAGGCCCATGGCTTTGTCCAACCTCAGC
Ta-alpha-B1	AGGGCTCCTTCCAGCCATCTCAGCAGAACCCATAGGCCCAGGGCTCTGTCCAGTCTCAAC
Ta-alpha-B3	AGGGATCCTTCCAGCCATCTCAGCAGAACCCACAGGCCCAGGGCTCTGTCCAGCCTCAAC
Td-alpha-B1	AGGGCTCCTTCCAGCCATCTCAGCAGAACCCACAGGCCCAGGGCTCTGTCCAGTCTCAAC
Td-alpha-B2	AGGGCTCCTTCCAGCCATCTCAGCAGAACCCACAGGCCCAGGGCTTTGTCCAGTCTCAAC
Td-alpha-B3	AGGGCTCCTTCCAGCCATCTCAGCAAAACCCACAGCACCAGGGCTCTGTCCAGCCTCAAC
Td-alpha-B4	AGGGCTCCTTCCAGCCATCTCAGCAAAACCCACAGGACCAGGGCTCTGTCCAGCCTCAAC
Ta-alpha-B2	AGGGCTCCTTCCAGCCATCTCAGCAGAACCCATAGGCCTAGGGCTCTGTCCAGTCTCAAC
Ta-alpha-B7	AGGTCTCCTTCCAGCCATCTCAGCTAAACCCACAGGCTCAGGGCTCCGTCCAACCTCAAC
Ta-alpha-B10	AGGTCTTCTTCCAGCCATCTCAGCTAAACCCACAGGCTCAGGGCTCCGTCCAACCTCAAC
Ta-alpha-B9	AGGTCTCCTTCCAGCCATCTCAGCTAAACCCACAGGCTCAGGGCTCTGTCCAACCTCAAC
Ta-alpha-B6	AGGTCTCCTTCCAGCCATCTTAGCTAAACCCACAAGCTCAGGGCTCCGTCCAACCTCAAC
Ta-alpha-B8	AGGTCTCCTTCCAGCCATCTCAGCTAAACCCACAAGCTCAGGGCTCCGTCCAACCTCAAC
Td-alpha-B6	AGGTCTCCTTCCAGCCATCTCAGCTAAACCCACAGGCTCAGGGCTCTGTCCAACCTCAAC
Td-alpha-B5	AGGTCTCCTTCCAGCCATCTCAGCTATACCCACAGGCTCAGGGCTCTGTCCAACCTCAAC
Td-alpha-B13	AAGGCTCCTTCCAGCCATCTCAGCAAAACCCACAGGCCTAGGGCTCTGTCCGACCTCAAC
Ta-alpha-B22	AGGGCTCCTTCCAGCCATCTCAGCAAAACCCACAGGCCCAGGGCTTTGTCCAACCTCAGC

Ta-alpha-B14	AACTGCCGCAGTTCGAGGAAATAAGGAACCTAGCGCTGCAGACGCTACCAGCAATGTGCA
Ta-alpha-B15	AACTGCCGCAGTTCAGGAAATAAGGAACCTAGCGCTGCAGACGCTACCAGCAATGTGCA
Ta-alpha-B16	AACTGCCGCAGTTCGAGGAAATAAGGAACCTAGCGCTGCAGACGCTACCAGCAATGTGCA
Ta-alpha-B17	AACTGCCGCAGTTCGAGGAAATAAGGAACCTAGCGCTGCAGACGCTACCAGCAATGTGCA
Ta-alpha-B18	AACTGCCGCAGTTCGAGGAAATAAGGAACCTAGCGCTGCAGACGCTACCAGCAATGTGCA
Ta-alpha-B11	AACTGCCGCAGTTCGAGGAAATAAGGAACCTAGCGCTGCAGACGCTACCAGCAATGTGCA
Ta-alpha-B12	AACTGCCGCAGTTCGAGGAAATAAGGAACCTAGCGCTACAGACGCTACCAGCAATGTGCA
Ta-alpha-B13	AACTGCCGCAGTTCGAGGAAATAAGGAACCTAGCGCTACAGACGCTACCAGCAATGTGCA
Ta-alpha-B23	AACTGCCCCAGTTCGAGGAAATAAGGAACCTAGCACTGCAGACGCTACCTGCAATGTGCA
Td-alpha-B15	AACTGCCCCAGTTCGAGGAAATAAGGAACCTAGCGCTGCAGACGCTACCTGCAATGTGCA
Td-alpha-B10	AACTGCCCCAGTTCGAGGAAATAAGGAACCTAGCGCTGCAGACGCTACCTGCAATGTGCA
Ta-alpha-B21	AACTGCTGCAGTTTGAGGAAATAAGGAACCTAGCGCTGCAGACCTACCAGCAATGTGCA
Td-alpha-B9	AACTGCCGCAGTTTGAGGAAATAAGGAACCTAGCGCTGCAGACCTACCAGCAATGTGCA
Ta-alpha-B20	AACTGCCGCAGTTTGAGTAAATAAGGAACCTAGCGCTGCAGACCTACCAGCAATGTGCA
Td-alpha-B8	AACTGCCGCAGTTTGAGGAAATAAGGAACCTAGCGCTGCAGACCTACCAGCAATGTGCA
Td-alpha-B7	AACTGCCGCAGTTTGAGGAAATAAGGAACCTAGCGCTGCAGACCTACCAGCAATGTGCA
Ta-alpha-B19	AACTGCCACAGTTTGAGGAAATAAGGAACCTAGCGCTACAGACCTACCAGCAATGTGCA
Ta-alpha-B1	AACTTCCCCAGTTCGAGGAAATAAGGAACCTAGTGCTGCAGACGCTACCGGCAATGTGCA
Ta-alpha-B3	AACTTCCCCAGTTCGAGGAAATAAGGAATCTAGCACGGCAGACGCTACCGGCAATGTGCA
Td-alpha-B1	AACTTCCCCAGTTCGAGGAAATAAGGAACCTAGCGCTGCAGACGCTACCGGTAATGTGCA
Td-alpha-B2	AACTTCCCCAGTTCGAGGAAATAAGGAACCTAGCACTGCAGACGCTACCGGCAATGTGCA
Td-alpha-B3	AACTGCCCCAGATCGAGGAAATAAGGAACCTAGCGCTGCAGACGCTACCGGCAATGTGCA
Td-alpha-B4	AACTGCCCCAGATCGAGGAAATAAGGAACCTAGCGCTGCAGACGCTACCGGCAATGTGCA
Ta-alpha-B2	AACTTCCCCAGTTCGAGGAAATAAGGAACCTAGCGCTGCAGACGCTACCGGCAATGTGCA
Ta-alpha-B7	AACTGCCCCAGTTCGCGGAAATAAGGAACCTAGCGCTACAGACGCTACCTGCAATGTGCA
Ta-alpha-B10	AACTGCCCCAGTTCGCGGAAATAAGGAACCTAGCGCTACAGACGCTACCTGCAATGTGCA
Ta-alpha-B9	AACTGCCCCAGTTCGCGGAAATAAGGAACCTAGCGCTACAGACGCTACCTGCAATGTGCA
Ta-alpha-B6	AACTGCCCCAGTTCGCGGAAATAAGGAACCTAGCGCTACAGACGCTACCTGCAATGTGCA
Ta-alpha-B8	AACTGCCCCAGTTCGCGGAAATAAGGAACCTAGCGCTACAGACGCTACCTGCAATGTGCA
Td-alpha-B6	AACTACCCCAGTTCGCGGAAATAAGGAACATAGCGCTACAGACGCTACCTGCAATGTGCA
Td-alpha-B5	AACTGCCCCAGTTCGCGGAAATAAGGAACCTAGCGCTACAGACGCTACCTGCAATGTGCA
Td-alpha-B13	AACTGCCCCAGTTCGAGGAAATAAGGAACCTAGCGCTGTAGACTCTACCAACAATGTGCA
Ta-alpha-B22	AACTGCCCCAATTTCGAGGAAATAAGGAACCTAGCATTGCAGACGCTACCAGCAATGTGCA

Ta-alpha-B14	ATGTCTACATCCCTCCATATTGCTCGACCACCATTTGCGCCATTTGGCATCATGAGTACTA
Ta-alpha-B15	ATGTCTACATCCCTCCATATTGCTCGACCACCATTTGCGCCATTTGGCATCATGAGTACTA
Ta-alpha-B16	ATGTCTACATCCCTCCATATTGCTCGACCACCATTTGCGCCATTTGGCATCATGAGTACTA
Ta-alpha-B17	ATGTCTACATCCCTCCATATTGCTCGACCACCATTTGCGCCATTTGGCATCATGAGTACTA

Ta-alpha-B18	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCATGAGTACTA
Ta-alpha-B11	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCATGAGTACTA
Ta-alpha-B12	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCATGAGTACTA
Ta-alpha-B13	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCATGAGTACTA
Ta-alpha-B23	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCATGAGTACTA
Td-alpha-B15	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCATCGGTACTA
Td-alpha-B10	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCATCGGTACTA
Ta-alpha-B21	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCGTGAGTACTA
Td-alpha-B9	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCGTGAGTACTA
Ta-alpha-B20	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCGTGAGTACTA
Td-alpha-B8	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCGTGAGTACTA
Td-alpha-B7	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCGTGAGTACTA
Ta-alpha-B19	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCGTGAGTACTA
Ta-alpha-B1	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATCTGGCATCTTCGGTACTA
Ta-alpha-B3	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATCTGGCATCTTCGGTACTA
Td-alpha-B1	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATCTGGCATCTTCGGTACTA
Td-alpha-B2	ATGTCTACATCCCTGCATATTGCTCGACCACCATTGCGCCATCTGGCATCTTCAGTTCTA
Td-alpha-B3	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATTTGGCATCCTTCGGTACTA
Td-alpha-B4	ATGTCTACATCCCTCCATATTGCTCGATAACCATTGCGCCATTTGGCATCCTTCGGTACTA
Ta-alpha-B2	ATGTCTACATCCCTCCATATTGCTCGACCACCATTGCGCCATCTGGCATCTTCGGTACTA
Ta-alpha-B7	ATGTCTACATCCCTCCACATTGCTCGACCACCATTGCGCCATTTGGCATCTTCGGTACCA
Ta-alpha-B10	ATGTCTACATCCCTCCACATTGCTCGACCACCATTGCGCCATTTGGCATCTTCGGTACCA
Ta-alpha-B9	ATGTCTACATCCCTCCACATTGCTCGACCACCATTGCGCCATTTGGCATCTTCGGTACCA
Ta-alpha-B6	ATGTCTACATCCCTCCACATTGCTCGACCACCATTGCGCCATTTGGCATCTTCGGTACCA
Ta-alpha-B8	ATGTCTACATCCCTCCACATTGCTCGACCACCATTGCGCCATTTGGCATCTTCGGTACCA
Td-alpha-B6	ATGTCTACATCCCTCCACATTGCTCGACCACCATTGCGCCATTTGGCATCTTCGGTACCA
Td-alpha-B5	ATGTCTACATCCCTCCACATTGCTCGACCACCATTGCGCCATTTGGCATCTTCGGTACCA
Td-alpha-B13	ATGTCTACATCCCTCCATATTGCTCGGCCACCATTGCGCCATTTGGCATCGTCGGTAGTA
Ta-alpha-B22	ATGTCTACATCCCTCCATATT-CTCGACCACCATTGCGCCATTTGGCATCGTCGGCACTA

Ta-alpha-B14	ACTGA
Ta-alpha-B15	ACTGA
Ta-alpha-B16	ACTGA
Ta-alpha-B17	ACTGA
Ta-alpha-B18	ACTGA
Ta-alpha-B11	ACTGA
Ta-alpha-B12	ACTGA
Ta-alpha-B13	ACTGA
Ta-alpha-B23	ACTGA
Td-alpha-B15	ACTGA
Td-alpha-B10	ACTGA
Ta-alpha-B21	ACTGA
Td-alpha-B9	ACTGA
Ta-alpha-B20	ATTGA
Td-alpha-B8	ACTGA
Td-alpha-B7	ACTGA
Ta-alpha-B19	ACTGA
Ta-alpha-B1	ACTGA
Ta-alpha-B3	ACTGA
Td-alpha-B1	ACTGA
Td-alpha-B2	AATGA
Td-alpha-B3	ACTGA
Td-alpha-B4	ACTGA
Ta-alpha-B2	ACTGA
Ta-alpha-B7	ACTGA
Ta-alpha-B10	ACTGA
Ta-alpha-B9	ACTGA
Ta-alpha-B6	ACTGA
Ta-alpha-B8	ACTGA

Td-alpha-B6	ACTGA
Td-alpha-B5	ACTGA
Td-alpha-B13	ACTGA
Ta-alpha-B22	ACTGA