

**Supporting Information S1.** The benchmark dataset  $\mathcal{S}$  contains 247 DHS sequence segments and 710 non-DHS sequence segments.

### I. The 247 TIS sequence segments

>DHS1

CTTCGCCAGCCACTCTTAGTCCGCCAGCGCGTGCGGCGGAGGCCGAGCGTCTCTATG  
ATCCTGGCTTCTGGCAACGTCATCGTCACGCGCCGGATCCAACCCCCAACCACTTTA  
GCCAGCTCTAGAGGCGCGCGTGCGCCGGGACGGAAGTGCGCGCGGGTGTGCGCCGGGAG  
TGC GCGCTCCTCTGGCTGACGGGCGGGCCGGGCATGCGCCGCGGGCGTTTTGGCGGG  
AAGCGCGGGGCGGGCCGGACAATGAGAGTGTCCGCCTCC

>DHS2

GTAGTCAGCAGAGCGGAATCTAGGAAGGCTCCTTTCCCGCGGCCCTGGAGGCGGG  
GGCCCCACCTTCCCACGCAGGCGCTATCAAGCCCCGCCTCCTCACCCGCCCGCGGCG  
TGGCGTCGGAAAGAGCCCTCAGCCCCCTCCTCTCTGGCGCTGATACCCAATGGGCAG  
CCTCAGGCCTTTAGCGGGGGCGGGCACCCCCCTGGACGCCGTTCTGGTTGGCCCGCG  
GCCCGGCGCAGCGCATGACGTTATTAC

>DHS3

CGCCTCCGAAAGAGGATAGGCCAGCCTTTTTCTTAGTCTAACCCCCGAGAAAGGC  
CTGTGTGGGCAACGCCCCCGCAGTTGACCTATCAGCACTATCGCCACGCCACCAGC  
CAGAGTCCTGTCTCTCAGAGGCTCCCTATACTTATCGATGGCCCCGCCCTCTGG  
ATCTCTTACTCTAGCCCCGCTGCTTCACTTACTCCCTCCCCTTCGCTCCACACAC  
CGTCCCCGCCCATCTGTCCATCTCTTTCTAGC

>DHS4

GGAGTATGAGGCCGAATCTCATCCTCTAGTCCCAAGCCTCTCCACTACCAGGGCTGG  
GTGGCTTCGCCAGGTAGAGCGCCGGCCCCCTTAAAGAGCAAACGACCCGGACACGTCT  
GCGAAGCTTGCGCGAAGAAGGGGAAGTTTGCGGCTGTCCGCGCCTCCCCGCTTCTC  
GCGGCTGCCCGGCCGAAACCAAACCGAGGGGTGGGGTGGCGAGGACAGGGTACGTCCG  
CAG

>DHS5

GCTCTAGGCCCTCTGGGATTGGCTGTGCCTGAGCACATCTTCCCTCAGCGTTTCTGA  
TTGGTCGCTGGACGCGCGGGATGCGAGTCCCCATTGGCTAGGCCAGGGCGCCTGCGC  
GGCGGGTTCTCGGTGCGCAGCCATTCCTGAGGAGGACTGCCGGTCGTTCCGACGTC  
TTGCCTGTGCTGGAGGAGAGGTCCGGGCTCTCCAGGAAGGTGGCTGCGGCGACAAA  
ATGAAGATATTCGTGGGC

>DHS6

GAGCGAGGCCTCCAGAACTACCATCGCTCTGTCTTCAGCGACTTCCCGGTAGCCGCC  
GGAAAACCTCCGCCGAGACCGGACGTGACGCTACGACGGCAGCAGGAGCTCCTGGTC  
CACAGGCTCACAGGCCCGGCAGCGGCCCCAGAGGCCGGGCTGGGAAAAGCAGCGGG  
CTTCAGCGGATGAACAAGGTTACCACGGGAAGTGTAGGAGCCAAGGCCG

>DHS7

AATTGGAGCTGGAGTTCTGAGCGGCTGGGTACTGTGTATTCCAGCGGTGGGTGTCTG  
TACGTAGTTAGAACCTGGCAAGAGAGCACTCTCGAGGAGCCCGCAGGCGGGGCTCGG  
CCGGGGACCAGCAGGGCTTGTGCGGCGCCAGGCTCTGCCCCCTACCCGACCCTGCCT

GCCGCTTGCCGCCTGCCTTTGGCTAGGGCCGCCGAGCGCCCTGCCCATTTAAGTAGG  
CGGGCCGTACCACCGCAACTTTCTTGA

>DHS8

CATGTATGACATCCCAAAGATGCCTGATTATTTTCCCTTCTTTAGGGAAAGGTGGTC  
CCAATCACCAACAAAACAGAGAAAGAGAACGAGAATTATCTCTAGTGGTTTTGCCTG  
CTAATCTTCTTTTTTCCCTGAAAGAACACCCTCACGGCACGGCGTTTTTCTTAACGGT  
CAGGCGTTTTTCCGGGCAGCTTACCTGCTCGGCCTGGGTCTTTCTGGACAGCAGGC

>DHS9

TTACTATCTCCATGAGCAGGTCCAGGCGCGGGACCTGTTCTATGACTCGATTGGGTG  
CTGCCCTTGTCCGTCATCGGAAGGCTTACAGCGCCTACTGTTTTGCAGTAAGATTTG  
CAGGCTTAGTACCGCCTCTGGAAACAAGGAGAGTGAAGGGGCGTTGACGAGTAACGT  
TGTTTGTATTTCTCTCCTCATTGGATGGCTGCTGTGTTCAGTCAGACACTTCTCTGCT  
TCC

>DHS10

CTCCATCGCTATCCCAGGAAAAAGCTCGGGCCCAGCAGGCGCGTCACAGGGTGGAGG  
GGGCGGGACTGCACCAATTTGCGCAGGCGCCTCCAATAGTTGGCCAATGGAAAAGCTG  
TGGCTCTAGAAAGCCAGCCCGCGCTCCGTTCTGACGTCACTATAAATGCTAGACTTT  
ATTGAAAATGTAGTCCTTGTCTGCCCCGCGCTATTCATGCTTGTCAATGCTGTG

>DHS11

TCTCACGCACTCACTGTCACTATCGGCGCCGCAGCCGCCGCGGCTGTCTAGACCCAC  
CCAAGGCCAACCGAGCTCCTGGGCTGAGGAAGCAGGAATGGGAACGAGACGAGTACG  
CCTGCGCCGGGTCTGAGCGTCAGACACTGCGCCTGCGCAAGTGGGCCGAGCGCAGAC  
ATTGCGCCTGCGCAGCAATGCCATCGGTTAAAGCGCATGCGCAAGATGAGCTATTGC  
GGAAGT

>DHS12

CCCCATCCCACCTCTTACCTCCCACCGAGCCAGCGGGTGGGCAGGAGGGGCCTGAT  
TTGGGGACCAGGAAGGAGGAAGGAAGGGTGGGGGCGGGGACGGGGAAAGTGAAGTGG  
AGCAGTGAGAGCCGAAATGAGTGGCTAGCGAGGCACCCAGGAGCGCCCTGTCCGGC  
GGCGCTCTAGCCCTCGCGCACTGTCTCTATGCTCCCCAGCGTCTAGTCTATTTATTG  
TCGCGGGG

>DHS13

CAGGCTGAAAGCCAGGATAGGGGCGTCTGCAGGGGCCAGTGTCTGGATCTGCTCACA  
TGACAGTCTTCTGTTTTGGCCTGGTTTTGGGGCGAGGGGCAACCTCTTTCCAGGATGC  
CAGCCATGTGCAGGGCATACTGAGGATTCAACAGTGGAAACCAAAGTCCATCAGGTG  
TTCACCTTCTAGTGGGGCAGACGGGCAAGAAGCAGAATTGGTGGGGGCAGGCAGGGG  
TTGGGGTACAGTTTTGACCAA

>DHS14

CCTAAGAAAGCGTGTTTGAAGTGGATCGCTGGAGCATCTGCCGGCACCGCCAGGACC  
CGCCCAGGACCCGCCCCGCCCCCTGCGGCCCCGCCCCCGCATGCTGAATGCCATAT  
AGGCGAGTGACGTCAGGCCGTTTTGTTGTTCATTTGGCGGCTCCCAAGATGGCGTCCATC  
ATGGAAGGGCCGCTGAGCAAATGGACTAACGTGATGAAGGGCTGGCAGTACCGTTGG  
TTCGTGCTGGACTACAATGCAGGACTGCTCTCCTAC

>DHS15

AGTTACTGGGACTTGGAGCAAGGGCCTATTTTCAGCGTAGTTTCCGCTTCTTGTCACA  
 TGACGGGAGTCAGTGGGCCGCGCCTTCCCCTGCGACTCCCCGTGGGTCCGCAAACC  
 GACACGTCACCTCCTCGGCCCTCAACCAAAGTCTTGGGGCACGTTCTTTCCGCGCTC  
 TTGACTCCTACGCGCCGGCCTATGACAGCTCGGCGGGAGCATAACAGACCTGCCTCTA  
 GACTG

>DHS16

AGTCCTCCGCCACTCACTACGCGCCTCTAGATCCCTGCGGCCGAAATATCGCGAGAC  
 TTCGCTCGGGGCAGCTGCTACTGTGGTAAAGAATTCACTTTTTTACCACAGCGTGCG  
 TATCAGCAAGTGAACATAAAAACGCCTCTTCTAGTCAGAACTGGCCAATCCCGACC  
 CCCGGTCCACCTAGGGCTCCGCCACCACCGAGAATAAGCCAATCTCTTTGAGGCTT  
 CTACAGGAGAACGCCGTGCGTTTGGAGCTTGAACCTGATAAGCCTG

>DHS17

TGAGGTCATTTCTGACCAACACAATTTGGTCGTTCTATTAGTTGTTCCCTGCAGACCT  
 TACAAAGGAGTATGTTGCTGTTCTTATATGCCCTTGTCTTGTGTTGTTCAAAAATCC  
 TCTGTGCTATGCTTTGGATGCTGCATGAGCCTGCAAATGAATGCTTAGCATTGTTGA  
 AGTTGACTGCTGCCCTTTAGCTGTCTGGCTTTGGGTTTCAGCCAGAAAGAGTGGCATC  
 TTTAACCTGAGTC

>DHS18

GTTGCACAACGTGAGCGATGCCGCAGCGGCTGAGCCGCCATCTTCCCGCAGCCGGCG  
 CCTTCCCTTTTGAATACACGCCAGGCCCCCGCCCAAGCACAGCTCCTGCGTCCTCATT  
 GGACATCATGGGCAATCCAAGCACTGGAGTCCGAGTCCGCGCACTCGTTACCTGAAC  
 AGGCGTTACAGGCCCTTTGGCGCCTGCGTATTCGTGAAGTGTGAAAAAGCGCGCCT  
 CTGTTGGGACGGGAAATC

>DHS19

GTGATCCCTTTTGGGAAATGTAGTCCTTAAGGGTATCGCGCCTGCTTTTTTCTATACG  
 CTCTGACGCAGAGATAGCCACGGGAAGTACGTCACCAAATTTCCGCGGTTCCACAA  
 GCTAGGTCGTGTGACGCTGCATGACGGGAATTGTAGTCCTCAAATGCTAGCTTCCG  
 ATGCCATGCGCTGCGACTGGAACGCCAATTTCCACCATGCCGCGCGCTCACAGCTCT  
 CAGGGGCTGTCCTGTG

>DHS20

AGAGAAAACCTACACCTCCCAGGAAGCCGTGTGCGTCGCCCCGCTTCTACTGCCTTT  
 CACTGCGCGTGCGTCGTGCTGTGGGATTCGCGGACCCCTCTGGCCGCGCTGTGGCTG  
 TTTACCGCTCCCCGGCTGGGACTTGGAGTCCCTTATCTTTCCCTGGTTTGGTACAT  
 GACCCGGAAGCCTCGGCTGGCCGTTGCGTCATCCATGGCGCCGGCGCAGAGCGAGAA  
 GGAGGTGGGA

>DHS21

GTTTTCCAGCGTACGCACAAGTTCCGCCCTAAGGGACCGCCCTTTAAGCGCGGGCA  
 CTGCGGTGGAAGCGCGCGCTGGTCTGGACATGACGTAAACCAATGGGCAGGCCCGGA  
 AGACAGAGGCGTTTGTCTCCGTGGCCAAAGGCGCTTCATTTCCGGGTGAAACTGGCA  
 TTGAGGGTACTGGGGCGTGCGTGAGGCGTTTACTGATGCTTCCCTGGTCCGCTGGCCT  
 CGGTCCCGGTAAGCCAGGCATGAAGATCACA

>DHS22

CGCACTGAGGGACTACGTTAGCAGACGCGTCAAAGTACCAGAAGCTGGCCCCCGGC  
 GCATGCGCAGAGATGTTCCGTGGTGGGCGCGGCTCTTCTCTTGCCCAACCACCGCC

TGCCTCCTCCCTCCCCAAGCCGCGCCCTGTGCCTCGAGCGCTTGCCTCCAGGGTGCG  
CATGCGCGATGGGGCTCCAGGGGGAGGTGTTTGATACATCAGGGTGTCCCCTTG

>DHS23

TAGCCCTGGTCCATGTCTTCGACGCGGCCACCAGCAGCCCCGTTTACTAGGCGACC  
ACAGCACGCATGCGTTCAGCGCACCTCCGCCATCGACTACTGGAAGACCAGGCGCAC  
ACGTCACTACTTCCGCGCGCCCCATTTGGCTGGTCTTCACGAGGGCCCCGCCCTCGCC  
GTCCCAGCTGGCCTTTCGGGCTGCTACGATCCAGCTCCGTGGCCTAATGGGAGTTGT  
GGTCCCAC

>DHS24

TAGGGAAGCTCGGCTACTGATCTATAGCATTAGACCCACAACCTCCGGTGGCAAGCAT  
CTGATCACACTTACCAAGGATCACACTTACCAAGGAGAAGAAGCGACCCTGCGAAT  
CTGTCTCCAAAAGGAGAGAGAAAACGCGAAGCATCCTTTTTAAACCTTACGAAGTG  
CCCGAAGTCTGGAATGTCTATTGCGCGTGCGCAGAAGCATGCGCAGTTAGAGAAT  
CAGAACTCACTGAGGCTTC

>DHS25

CTGCTGAACTCAGCGTATCCAGTCCCGCAGCTGACCAATCGGAGCTCGCCCTTCCGG  
GGCCCGCCCATTCAGGAATCGACCTCCGCACCGGCCTCGAAAATTGACCAATCGG  
TTGTGTAGCTCCGCTCTTAGTCCCGCCCCACGCTGAAACTGACACTTCGGATCGCC  
GAGTAACGCTCACCAGACGTCCCGGCCCTGCCCTCACCTGACCAATCAAGACGGC

>DHS26

CGGCAGTCGGTGTAACAAGGCCTCGCGCCGCTGCGGGTCTGCGACCGCTCCTGGC  
TGGTGGGTGGTCTCGCGTGGGGCGGTTACCGCCGGCTTCAGTGGGAGGTGCTTCTCG  
GCTTCTCCCTCATGGCGTACACACCCCGGCGCACCACGTGGGCGTGAGGCGAG  
GAAGGAGGGGTGTTAGGCCAAATTTCTATTTTCATTGGCTGTCACTGCTGCCGGCCTT  
TGTAAGGGGGCGCTCTGATTGGTTCGATAAGGTG

>DHS27

GTCTTCTGGTCTCCACCCTTCCCGAAAGGCCAAGCGGCGGAGCTGGGGCGCCAACG  
AGAAGGGGGTGAGCGTGATTGGGCTGTCCTACATCACGTGACGGCCAGTACGCGTGG  
GATTTGGCTCCGAGGAGGCGGAAGTGCAGCACAGAAAGGGGGTCCGTGGGGGACGGT  
AGAAGCCTGGAGGAGGAGCTTGAGTCCAGCCACTGTCTGGGTAAGTCCAGCCATCGG  
GCCAGGTCTCTGGGGTTGTCTTACC

>DHS28

CTCCCACCCACAGGTTCAAGCCTCCTCAGTATCTGAGAAAGGCGCGAAGCCTCTACG  
CAGTTGCGACCCGAGGCGAGCAACAACCTAGCGCATGCGCACGTGAGCCCGCGGCGCA  
CGCGCGCTGACCTGTGGAAGGAGATGCCGCGGTTGCGCGTCTCGCGCGTGTCCCCTG  
TGCAGCAGCCGGCGGCGGAGCAGTGACGCGGCATCTGGGAAAGAGGCGGGAGTTAAG

>DHS29

GAGCCTAGGAAGATGTCTGTTGCCTTGGTTCCCGGGACCTGCCGCTGCGGAACAGCC  
CAAATCTGAGGAAACCTTGGACACAGTTCTGGGTACTTCTGCAAACCTTCCCCGG  
ATCTAGGCGGTGCTCACCGACAGGAAGCGATGTGTGCATCAATATAAATAAGCCGGT  
GGGGCAACTAGATTGCGTGCATCCTTCCAGTTCAGGAGTGAGGCTCCTCAAGTCTAAG  
CAAGAGACCA

>DHS30

CATCTACAAACGCAGGAAACCACGACTGGAGAAGTTATATGATTGGCTAAACCATGA

ATGACGCAACATAAACCACGCCACTGAGAATCGTCCTTTCCCAGACTGGCTCAGAT  
 TCCGCTTTCCGATTGGTCCCTACAGCAAGAGGGCAAGGACAATTGCTTAAGTTGACC  
 TCTGGGTCCGGAATCGCGGGCAAAGATGGCGGGCCAGGTGTTGGAGGCCTTTGCT  
 AC

>DHS31

CTCGCTAGTGAGGAGAGACTGACCCAATCTCAAAAATACAGAATAGGCATGGGCAGG  
 GAAAGTTGGTGTGTGAGCTGAGGGTGGAACCAGTCAGGCCAGAGTTCCAAATTGGAA  
 AAAACATTAGAGTGTGGGAGGGACTAGAAAAGAAGGAATTAAGAAGCTTTTTTAAA  
 TTTCTTGTTTGTTTCAACTGCCTCCCATCCCAACCCCTTGCTTTGTTTCATTCATG  
 GTTAACCCACAG

>DHS32

CTTTTCATGTTTGCTGGGTTTGCCCGTTACACCCCTTCGCCCGCACTTATCTAGACA  
 GGCAGCTCTCGGCCACCCTCCGGGGTCTGATTTTGAAAAGAGGAGTGGACCAATCA  
 GATGTGGAGCGCTGTTTCGCGCTGCCATTTGAGCCTGGGCTGAAACTGCGGGTGTGA  
 CCCCCCGTGGTGGCTCTGGGTGTCTGCGGAGGAGCTGGGGGCGGAAGCATGAGGCT  
 AACGGCTTGGCTTCAGTGAAC

>DHS33

CGGCCATGCCAGTAGAAGACTAGATGCCGGGACTTCACCCACCCCTTGAAGAATGAG  
 TGGCCGGAGAAGTGATGATTGGCGTGCTTAAAACCCAATCATAAACGGAGGAGGGGG  
 GATGGTCTAGCGGGGGCGCGTTAATGGGTACCTCTGCCAGTCCCAGACACATCCGGG  
 TCTTCGACAGCCCATTAAGTGTGCGGGGTCAAAAATCGCTTCAGGCTGCAACT

>DHS34

AAACCTTCAGGAAGGCATGAATGTCGCCACATTGCCCTTTTGGAGGGAGGCCCTGCC  
 TCCGAGAAGAGGCGTAGGGCCCAACGTATAGGGCCGCCACTCACTGTAGGTGCGGCC  
 CAGGGCTTGGAAGAGCAGATCACGCTTCACGCTGACAGTCGGCATGGTGTGTGCAAC  
 TCACTGCGCCTGCGCAGCGAGCTGACCCGGGCTTCCCTAGCGAAGCGCGTAGGACCC  
 GCCTCTTCTTGTGCGTGTGTTGCTTGAAT

>DHS35

GCCAATAAACAAACAGCAGGAAGAGGCGGGGCCCTGTAGTAACCGCCCCAAACACCT  
 ACTTCTAACCAGTTCGAGTCACAAGACTGGGGGGAAGGGCGGAGCCAATCCGACGTAA  
 CCAATCCAAGATTTGAGGGCGGTTACATGCACCCACTCCCTCGGGTTTGGCTCCGC  
 CCCTCACCTTGACGTAGCCCTCCAGCCTATCAACGACTGCGCCCGTTGGGGGTGAG  
 GGAAGGGGGCGGAGCGTGGGAGGAGGCCGAGAGAGGAAG

>DHS36

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 AGTGGTGCCTGGGATTCCGTCTTAACCCCGCTAAGGTGTCCAATGACCTTTCCTTAC  
 CAACTGCGGGGAGTGTGTGGAAACGCGGTTCACTCCCCGGTTTCTTATTCTGGATC  
 AGTG

>DHS37

GGGTAACGTTGTCTCGGATCTCCCGCCCCCTCCCTTCTTTTCGCTGGCCGCGCACGCG  
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 AGGTTAAGTAGACGAGCCGGGCGGGTCTGAAGAAAAGATGCTACGACGGCCGCGCGG  
 ACGCTCATGGGCGGGGCGAGACCACAGCGGTGCGCGGGCTCCTGAGCGCCACGCGC

TCGCCTTTCGTTTCGTAACCCCTG

>DHS38

TAAATGCTACTACAGTGCCCCACACGGACTGCCACGAGCGGGTCACGTGACTGGACT  
CTGGATCGGCTGTGCTGTGATGGCCGCGTAGCGCGTGTGTGCGCGGAGACTATA  
AGCCTCTGGGCCGCCGGTGCCTCCGCGCGGTACCGCCTCCACCCGCCTGGCCGCTT  
CCCTCGGCGCATGCGTAGCACACCGACTCCAGGATTGTTTCCCAAATCCCACTTC

>DHS39

CCGGTCGATGTGCTTCAATCGAAGCTGCCAACCTCTTGCACCTTCCTTAAGGAGGCT  
CCGCCGAGCCCCGCACGACGCGCCGGTGCCCAGCCGCTCAGAGCCGAAATGCTCC  
GCACCGCCTCCGCACGGGCTCTAACTCTACCGGATGTGACGCGGGCGCTCCTTAGCCA  
GGCTCCTCCCTCCAGAAACGCGCGCTTTCTTGGCCTCGCCCTCCTCGCTCTGCC  
TTTCCT

>DHS40

ATCGTGCAACCATGGAAACCAGCCCGCCGGCTGCCACAGGGCTGCCGACTCACCAGC  
CTCGCGCGCTGCCAGGGCAACCGTGAGACGGGACTTCCGGCTCCCGGGGAAGTCCCG  
CCCCTCTCCGCCGGCCGCTTTTGTAGCCGTGGGAGGCGGGGCTTCAGCCAGGGCGG  
GGTCCAGCACGGCGGGGCGGGGCGGGACGGGGCGGAGCCTTCCCGAGCTGCGAGGTC  
GCTGTCTCCTTGCGCTCGCCACTGGCTCTCTCTGCGGCAGGTTTC

>DHS41

GGTTGGATTGTGGAATTACGTCTTTTAAAATGTTATTTGTCCAATGAACAAAAACCA  
CTCGCACCGCAACTCCTTTTACTATCAAATCTGCACCGTTGCAAAACTTCCTTCAC  
TCAACGCTTCTTTACAAACATCGCGATAGCGGAGCGGTCTCTTGGGCGCACCCCGCC  
GCATGTTCAACCCCACTTCCCTGTCTGACGATCTCCTTACGTCAACGGTGCCT  
GGAGCGAGTGAGCAGCGATACCTAGG

>DHS42

GACGTAATAACGATCCCACGTACACTTTAAAAAGCAAATCTCACATACATCACTT  
CCTGGAAGCCCTAGTCAGCCTTTAGCCCAAGCAATGCTGAGCCCAATCCTTCGGCCT  
TCCGTAGTCTCGCTCGGTTTCGCGAGATCGAGGCTGAGCTCCGCCGCGCCGCGTGG  
GGGCGACCCAGAACACTTCCGGGTGTAAGTGGTTGTGCTGTCTGTGTACTTCCGGC  
AGCCTCCAGACAGTTTCTTCCGCTTCCTGTAC

>DHS43

GTCTCTTCTGCGGATATACCTTGGCTCCTCCCAAGTCTACGAGTTTAAACTTCGAC  
GCACCAAACATGGCTTCTTCGCGGTTCTGCTCCTTGTTTTATTTGCTCCCACCTTT  
CGGCCAACTCAACATGGCCCTAACCGAAGGTTGGCATGCCGTGTGGCACTGTCTCGG  
GACAGTTCTCGCGAGGTTTGCCTGGGCCCCGACTGCTCCCGCCCTGCCTCGCGCCGCC  
GCCACAGCCGCTGCCGCTGGCGCCGCTCCTCCTCCGTGTCAGTTG

>DHS44

CCTAAACAACAAAACCTCTGTTGCAGGCTCCTTACTACGCCGAAGCGCCACGGCTAGA  
GCCACTTCCGGCGCGACCTCCTCACCCGAGACGACCTCAGCCCAGCGAGTACTGCAA  
CCTCCTGCAAACACCCGCGAGCGCCACACAGGCTAAACCCCGCCCCGTGCCGCCCC  
CGAGCCTCGCGTGTCTCGCGCCGGCCAGTAACCGCGAGACAAGTCAGGGTCTTGAC

>DHS45

CGGTCCTTGCTCAGCACTACCCCTTACCTGCCCTGCGCACCCCCCGCGAGCCCCGG  
GGCCCTTAGCTGACGACCGCCCTCACCTCTTCTCTTTCGCTGCCGCGGCCCTTTTA

CAAACGGGGCCAAACTGTTTCGCTGTAACGACAATCGTTATTGGTCAGAGCCGCCAC  
GCGCGCAAGTGGCCGCCACCTGAGCTCGCGTTGTCTTATGGGAGTTTTAGTTCTC  
TCCTTCAGAGACCGCT

>DHS46

CATCCCATTGAGCTACACTTCACTTTTTAGGACAGAGCCTGGTAGATAGGAGACAAT  
CAATACAGATTTGTGTTTTAGGTTATTGCATGCTTATGGGTTAGCTAGGGAGCTTTC  
TTTTTATCTTTCAGGAAAGAAACCAAAGAGACAGACTCTCCAGCAGGCAGGGGGCGC  
CAGTGAGTGAGCTAGGCATAGAGTCTTGTGGAGAGAATTATGGTGTATAGAGGCTT  
AGAATCTTGGCATTAGCAGGG

>DHS47

ACCTTGGCTCCATCCCTGAGGGCCAGGGGAACCGGCAGCCTCGAGACTGATCCCTCG  
CCCTGGAGATTTTTCCAATCAGGCAACTCTGAGGACAACTGCGACCCAGAGCACCAC  
AGGGTGTCTAGAGCCACCTGGGCGTAGAATAATGACGTATAAGGATGTGGAGGCCA  
CCAATTGGCTGCGCTGTGCGAAGACGGACAGGTAGGCGGGGCGGGAGGAGGTGTGGT  
CGGCAGAGCAAATCCAATAGTCTTTTC

>DHS48

AAACAACCGCGAGCTAAGAGATGGGGCAGCGGGAGAAATGAATTCGAGTTCGCGCTC  
CTACCAGGAAGAACCGGCTCGGGCCGAGGGCTGCACGGAGGACCACACGGACGCCTG  
CGGGCCCGCCCCTTCCGCTTACGACGTTTACGCTGCGTCTGGAACCTGGAATGGCCT  
AGCCCAAAGCTAGATAACAGGTAGATTGTTTTTCCCGACAAATTATCAAACGACCC

>DHS49

ATATCTGCAGAGCAGCCTTGGCGTTGACCTCTTGTGGCAATTGCCTTTGACAGCCTG  
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GCAAGCTTATCTTCACTTTGCAGCCCTGGTAAGTAACTGCTGAGCGTTGCACAATCA  
GGGAGAAAATATTTACAATGAAAGTTGATCCAGAAAGACTTAGACAAGGGTCAGTGT  
ACCTTCAGTTTAGCCTGACCTCTTC

>DHS50

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GACGAGAGAAGGGAGGGGAACAAGGATAGAGCGCTCGCCAACGGCCGACGCTCCAGG  
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>DHS51

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CATCCACCCTTCCGGGTCGGTCCGTTAGCCAATCACAGATAACTCCCTTCTCTAAT  
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>DHS52

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CCTCTGCCACCACCGGAACCCACTTCGCCAAAGCTCAACGCGCTCGGAAGCAACTTC  
CGCCGATCCGATAGGAAGTGACATAAAGTCGTTCAATTGCGCGGACACACTCCTCCG  
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>DHS53

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CACGT

>DHS54

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>DHS55

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>DHS56

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TTGAGCCTCCTGCGCATGTGCAGGAGGGCGTCTGGGCTCCCGAGGTTTCGGCTTAC  
CCAGCAGTAAAACGCATGCGCAAAGCTTCGGTCAATGCGGGCTGTCCATTTCTCACC  
GCCGACTCCCTACATCAACTACGCATG

>DHS57

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ACACGAACAATGGAGGCCGCACCAACCGCCCCTTCTCTGAGTAGCAGACAACCTGAA  
GAGGCGTCTTGCCGGCGTGTCCCAATAAAACCCGGTGCATTGGCTCCCGCCTTACC  
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>DHS58

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CGTTGGGATGCCCGCTCCTTTCGTGAGCGCGCGCTCTGGGCGCTGGGCTCGCGGCC  
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GGGCTGGAGGACAGAGAAGCCTTTTCCGTTGCCGGTGCCGGCCTAGCGTCTTGAAT  
TACTTCAATCAAGTAAGTGCGTTTAAACGG

>DHS59

GGGGCTTTTGGGAAAATTACATAATCCCCGCCCTGGGCCGGAAGTGCCTTCGCCTA  
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TCTAGTAGTATATGCAACAGTTTAAACTATAGGCATGTTTCATGTAAATATGGTTTCT  
GTCCAACCCG

>DHS60

TAGCATGAAAAGAGGCTACTGGTTTAAAAAAAAAAAAAAAAAGCACTCTCCAAGAGACCA  
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ATATCTCAAGACATACTTGCTAAAATGTTTTAAAAGGCAGCTTATAGAAAAATGTGA  
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>DHS61

CAGAAAGCTCAGCGTGGAGTCGGGGACGCTCCTCCTCGCCAGGGTTCCCGTCCCCT  
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 GTATAAAAGGGCCTGGGTGGCGGGCGCCTGGGCAGAGCGTCCTAGCAGTGTCACTGC  
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>DHS62

GCGGTAACGGTGAGGCTTTTTACGCCGCCGGTAGCCGGCGCGCTCTTGCGAGCAGC  
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 TTTAGTACGAGCCATGGCAAACACAGAAAAGCTTGCCTGCAGAGACGTCTGTGGA  
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>DHS63

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>DHS64

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>DHS65

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>DHS66

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>DHS67

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&gt;DHS68

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&gt;DHS69

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&gt;DHS70

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&gt;DHS71

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&gt;DHS72

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&gt;DHS73

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&gt;DHS74

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&gt;DHS75

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 >DHS76

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 >DHS81

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 >DHS82

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>DHS83

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>DHS84

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>DHS85

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>DHS86

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>DHS87

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>DHS88

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>DHS89

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>DHS90

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>DHS91

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>DHS92

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>DHS93

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>DHS94

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>DHS95

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>DHS96

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>DHS97

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>DHS98

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>DHS99

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>DHS100

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>DHS101

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>DHS102

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>DHS103

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>DHS104

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>DHS105

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>DHS106

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>DHS107

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>DHS108

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>DHS109

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>DHS110

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>DHS111

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>DHS112

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>DHS113

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>DHS114

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>DHS115

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>DHS116

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>DHS117

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>DHS118

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>DHS119

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>DHS120

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>DHS121

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>DHS122

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>DHS123

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>DHS124

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>DHS125

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>DHS126

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>DHS127

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>DHS128

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>DHS129

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>DHS130

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>DHS131

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>DHS132

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>DHS133

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>DHS134

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>DHS135

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>DHS136

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GCTTGTCT

>DHS137

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>DHS138

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>DHS139

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>DHS140

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>DHS141

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>DHS142

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>DHS143

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>DHS144

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>DHS145

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>DHS146

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>DHS147

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GCTAGCAGGGT

>DHS148

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>DHS149

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>DHS150

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>DHS151

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>DHS152

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>DHS153

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>DHS154

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>DHS155

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>DHS156

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>DHS157

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>DHS158

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>DHS159

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>DHS160

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>DHS161

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>DHS162

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>DHS163

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>DHS164

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>DHS165

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>DHS166

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>DHS167

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>DHS168

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>DHS169

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>DHS170

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>DHS171

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>DHS172

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>DHS173

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>DHS174

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>DHS175

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>DHS176

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>DHS177

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GTC

>DHS178

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>DHS179

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>DHS180

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>DHS181

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>DHS182

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>DHS183

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>DHS184

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CTTGGCAGCCAACCCAGCCTAAGGCCGTCTTATCCAAGGCCGGCCCTCAGCGGCTC  
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>DHS185

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CACCT

>DHS186

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>DHS187

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>DHS188

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>DHS189

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>DHS190

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 AGCGGAAGGAAACAGCGATTTCGATCCCAACACGCACGCGGGAGCGCAACGGGTGC  
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>DHS191

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>DHS192

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>DHS193

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>DHS194

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>DHS195

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>DHS196

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>DHS197

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>DHS198

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>DHS199

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AGCCAGTCAGAAT

>DHS200

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>DHS201

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>DHS202

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 CAAACTTCAAGCGCC

>DHS203

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 AATCTAAAATTTTGACTCCTACTTGTATTTAAGCTCGCGGAAATGTGTAGTAGTG  
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>DHS204

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>DHS205

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>DHS206

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 CGACGGCAGCCTCTCCGGACCAATCACAACCTTCCCTTCATCAAGGAGGCGGGGTCGG  
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>DHS207

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>DHS208

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>DHS209

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>DHS210

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>DHS211

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>DHS212

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>DHS213

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>DHS214

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GTCCTGTGGTTGAAACGATGGAGGTCGCCCATCCCTGTCTAAGGGAGGCAGTAGG

>DHS215

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 >DHS218

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 >DHS219

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>DHS223

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>DHS224

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>DHS225

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>DHS226

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>DHS227

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>DHS228

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 TTGACCAA

>DHS229

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>DHS230

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>DHS231

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>DHS232

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C

>DHS233

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>DHS234

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>DHS235

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>DHS236

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>DHS237

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>DHS238

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>DHS239

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>DHS240

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 GGGAAGCCTCTCT

>DHS241

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>DHS242

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>DHS243

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>DHS244

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>DHS245

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TCAAACGCGCCATAGG

>DHS246

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>DHS247

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## II. 710 non-TIS sequence segments

>non-DHS1

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>non-DHS2

CCCGTCTGACATCTCCTGTTGCCTGGGCCGCCTCGGCCTGGACCCTGAGGCCAACCT  
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>non-DHS3

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 CAGCAGACAGACAAGAGCCAGGCCAGGAGGAGGCTTCGGGAGAGGCTGGGCCTGTGC  
 TCAGGGCTGAGTGAGACTAGTGACGTGGCCGGCCCCATGCCTCTCTGTGCACGGCT  
 GGATCTTGCAAACAGTCGAGTC

>non-DHS4

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 GGAGGCACGTCAGCCGGGAAGGCTGCAGGGAACCCCCAAGCCAGGCCACCAGGGCC  
 CTACCCTGCCATGGGGCGCACTTGCTCAGGCCTCTCCTCACCACAGGGTCTCTGGGT  
 GCCTCTGTGAAGACAGGATCCCAGTA

>non-DHS5

AGACAGGATCCAGTACAGGAAAGCCCCAGGCTGGCCCCGACCCTCTCCTTTTCTGG  
 GAGGAAAATGGGTTTATGTTGTGAATCCGCTGAAGCCCCTGGGACGTTGTCCAGGG  
 ACAGGGTCAGTAAAAATGTCTCAAAGGTCCGGGACTGGGCACAACGAGGCATTGACC  
 CCAGATGAATCCACAGAGCTCCCGGAGCAGGGGAAGTAGCCCTTGTTACCCACATG

CACAC

>non-DHS6

GTGACAACAAAGCAAAGCCAAGTTGGTTTCGCGTGTGACTTTGCGGGCGTGGTGAGAA  
CAGCTAGGCGTCTTCATGCTGCTGGGTGTCAAAC TGAACTCTCCAGCTTTAAGGAA  
ACCAGATGCTTTTCTTGCTCTCAGAGTGATGTGCAGGCTGCCCTGAGCATGCACACA  
CACATGCACACCCAGCAACACCTTCACCTTCAGACACGCTTTTCTCTAGCGCAGCGT  
CCCAGCTCCTTAGCAGAGGGCT

>non-DHS7

CTTCTCACACGTGGGTGAGCTTTGCTGCGGGGGTGGGGGTGCAACTCTGGAGGCTC  
ATTTTATCGCCGGGCCAGGGCAGTGATCTGCTCGGTGAGAAAAGAAAAGGCCATTCC  
CTGCCTTTCTGCTGGGCTCCTGGAGACTCCTGGAGACTCCCGGCATGGGCAGGCTG  
GGTGGGCTGGGAGCCCCGCTGATGCCCGGAGGGTGGGCTGAGGTCTGGACGCCGACT  
TGCCTTCCTACTTGAGCC

>non-DHS8

CCGACTTGCCTTCCTACTTGAGCCCAAACAGCCAGGTTTCTGGGTGGGCAGAGGCTG  
TGTGCAGACTCCAGCACACAGGGCACCTCTGACTCCCGCTTCGCTTTCCTCCCAGCA  
GATCTCCGAAGACCTGGGCAGTGAGAAGTTCTGCGTGGATGCAAATCAGGCGGGGGC  
TGGCAGCTGGCTCAAGTACATCCGTGTGGCGTGCTCCTGCGATGACCAGAACCTCAC  
CATGTGTCAGATCAGTGAGCAGGTAGG

>non-DHS9

CAAATGTTGGTTTCTCACTCCAGCTAGTTTTATGGAGCCGATCCGGCCCCCAAGGAG  
GACTGGAAGAGAAATACTGCTTTTGATTTCTGTCTCTCCTGGCGTCTTGCTGCCCA  
GGGCCGCTTCAAGGCCGCATAGCTGCTTCCGTGACAGGAGATCCCCCTTTTGTGGAG  
TGCGCCCTGTGCTGGTGTGGGGATACAGGACCCACCGACGTCCTGGGCCCTGAC  
TGCTATGCAGAGCTGATG

>non-DHS10

GTCTTACCAGGAGCAAGATGGAAGCATCCAGAATCCCACTTGGTCCCCCACCCCTCT  
TTCCAAGTGGCCTGGAGGGGCAGATAACCCTGAGGCTCTGACGCTGCCAGGCGGCCG  
GCACTCCTAGCGCACTCACACTTCACCCACGGTGCAAAGAATTCCCAGCCTGGTAAC  
AATGCCGCTTCGCACATCAGGAGAAGATTCCGAGAGCCTCAGGATGGCTCTAAAGTG  
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>non-DHS11

CTTTGTATGTCACTGAGCACCTTGGAGATTTCTGTGAGGCCAGTTACAGGGGTAAA  
GGACATGCCACCCACACGCTCTGTATTTCTGATGATGGAGTCACTGGCCGGGCTG  
GAATGGCGCCTCTCCCTACCCCTCATTGACAATGTCTGTCCCACTTGCAAGAAGAAA  
GAATACGGGAAGGTCAAGCTCTCAACACCCTGGCAGTCTGCTGGACCCTCCACCCCC  
GCCTTTTCCAGAGGACGTGTGATGT

>non-DHS12

GAGCCCAGGAGTTTAAGGCTAAAGTGTGCTATGATTGTGCCTGTGAATAGCCACTCC  
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GCAAATGGTGCACCAGGTTTGGCCATGGGAGTTTGGCGGCCCCCACTCTAGTGCTGT  
GGTAGGACAATGAGCTCACAGGTGTTAATTTCTCACTGTACTTCATACTATCATA

TGCAGTTCATTTATTGGCTTTGG

>non-DHS13

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 TTTCACAAAAGCATTATCAAGGCCCAACCCAGGATGCCCTGCTGTACAACCAAAT  
 TTGTAAGAGGTCAGCCTTTTCAGGGAGTCAAAAACCCAGCATGTGGAACTGGCAGGC  
 CTTTTATATAGTGGGAGGGGTCTTAAAACGACTACTGTTTCGCACTGAAGTCTCTG  
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>non-DHS14

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 TACATTTAACTGCCTGTGTGGTGTGCATGTTGAGCACAAATTACATCTATTATCTCGT  
 TTAGTGTTCACTACAACCTTTATGAAGTGCAGGCTACTAACCTCCATTTACAGAAA  
 TGAATACTAAGGTTTTGTGACATGCCCCAAATCGTGTGCTCTGTTGAGCCTGTATTG  
 AACCTGTGTGACTCC

>non-DHS15

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 GTGACAGCCCCGGCAATAAACTCAATCAACAAGCATTGTTGAACAGCTAAAGAGCT  
 GAGTCACTGCTTTAGACACAGATAAGGGGATGAGATAAAAATCCTGACATGACTTGG  
 GGCATCCATGTGACCAGTGCTGGGGAATCCCACAAGGACGGAGACCAGAGAATCAAG  
 ATAAGACTACCAAGGCAGCCA

>non-DHS16

TGGGCTGGTGTGTGAATATCTATAAATAAGTATATATGGTGTATATTATATGTGTAT  
 AAATAAAGTCTGTACATATTGGAGCTCTGGGAGATGCTGGAATAAAAGACAAGAGTT  
 ACATCTGGACTTGGATTGAGGTTTTGTTGTGTTTTTTAAAGCATGATGGGAAAGAG  
 ATAGAGAGAGCAGCTATTGGTAGAGAGGGTTTTATTTCGGGACCCAGGAGCCACTCTTA  
 GGCTTGGT

>non-DHS17

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 CTGAAATGTTTTTAATCAAAGACCGATACAGTAGGAATGCACAAGGAGTGCAACGTA  
 AAAAGAGGTCATCAATGTAGCTAGTGGCTTCAGTCACAGAAATAGCACGTGCCCCCA  
 CTGATTACAGCACCCGCGGGGAGACCGTTATTAAATTATACCGTACGGCTCCGCT

>non-DHS18

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 ATCTTGAAAGCATTTGACACAGTGGTATTTGTGGCGTATCTGGCGCTTGTCAGTGTG  
 GGGCCCAGGCCTGATGAGCCACCAGCCCAGCACCCGAATGCCTGCTGAAGGTGGCGC  
 ACACGTGTGCCCTGGGATGTCCGGCTCTTCACAGGGGATCAGACTGCGGGTCACGTTG  
 AGAGCCAACACC

>non-DHS19

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 GCCGGTTTAGCTGAAGCTTCCCTTTTCGGGGAGTTACCTAACTACCTCCCGAAGCCGT  
 CGTTCTGCTGCTTGGTTAATTCCTCTTATCGGGGGGAATTTTCTTTGTTTCGTTTGT  
 TTTTCCTCCCTTTAAGTCCAAGATAAATGTAGTGTGGAAGATTACGTCATCGC

>non-DHS20

GCATCATTTCAACCCCTGCTTCAAAGGGTTATGATAAGGACTCGAGGAGGCTATGGA  
 TGTAAAGCACTTGTGTGGTGTGGTGCAGAGCAAGCACTCAATACATGTGGGTTGTT

AGTCCTATTTCGCTCCTGACATCAGCAGCTGGGACTCCGCTGACTTCATGGTGAGCCC  
 CAGAGACAAGAGAGATGGGATCACCCTTTCCTTGGACTGTTCCCTCCCCTTCCTCC  
 >non-DHS21

ACCTCTCTGGCTTCCATGCTCCGCCTGTAAAATGGGGGCGCTATTGCTTCAGCTGCT  
 GAAGGGAGGGGGCTGGCTCTGAGAGCCCCAGGACTGGCTGCCCGTGACACATGCTC  
 TAAGAAGCTCGTTTCTTAGACCTCTTCCTGGAATAAACATCTGTGTCTGTGTCTGCT  
 GAACATGAGCTTCAGTTGCTACTCGGAGCATTGAGAGGGAGGCCTAAGAATAATAAC  
 AATCCAGTGCTTAAGAGTCAGG

>non-DHS22

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 GAGGCAAGCAAGTGCTGTGAAATAACATCATCTTAGTCCCTTGGTGTGTGGGGTTTT  
 TGTTTTTTTTTTATATTTTGAGAATAAACTTCATATAAAATTGGCCCTCTCTTTTG  
 TTCCTTTGAGTTGGAGTTACATACAAGATGGGGGCATTACTCCTTTGGAAATGCCAA  
 GTTTATCCTATGGC

>non-DHS23

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 AGCCGATTCAGAGAAGCAGTCCAGTCAGCACAGCAGCTCGCGGTTTTCCAGGTTCA  
 TCTTGACGCATCCTGAGCTACTTAACTTCGGTTCCCTATCCCCTGATCGTTTTAGAG  
 CCTGAACAGACAAAACATCCTGGTTACCAAGACTCGAAGAATGCATAAGCTGGGACC  
 AGGCAAAACAAACAGATCACT

>non-DHS24

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 CCCTCTGTCTTACCAAAGTCCACAGTGTCCCCAGGCCATACTCTTTGCCTGGACAA  
 TAGCAGGCACCCAGTACTGGTTTTCTGGCCAAACAATGAAGTAATGAATGAATGGCGG  
 CAACGCTGGCTGCATGGACTTCCCCAAGGTCACACAGTGCCTGGGAGTAGTGAGTT  
 GGGTCTC

>non-DHS25

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 CTCACAGATGAGTGAGTGTGAGGAGGTCTGGCCTTCCGTGCCTGTTACCACTTCCCC  
 TCCAGGTCCTGTTGCCACAATGCTCTTGCCCTGCGGTTGAGTTATCTTTACAAC  
 GAACTCTGGCCAGGGTGGGGCATGGGCCTAGACCCTGGAGTCAAGGGACTTGGGTTT  
 TAATACAGCCTCGTT

>non-DHS26

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 TCCTCCGTGCCTGGCAGTGGGCTCAAGTCCCACCAGTCACTTCCTAAATATGAACTA  
 ACCATATCATGATCTGTGTCTGATTGCTGCAGCTGCGGCGGGAGCTCTCGGGAGAG  
 ACCTGGCAAGCCCTATCTGCCAGCCTCCACCGCCTCCTTCACGGAATTGCCTCCTTC  
 TTGCTGGAGCTGTTGTGAGAACCAGATGAG

>non-DHS27

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 GAGAGCTTTTCTGCACCCAGCACGGTTTGGGCTCTTTTCAAGTGACGCTGCGTGTGG  
 CCCGGCCAGCTCACCACACTCACACGTGCCTCTCATGCCTCACACCCGCAGGGCGCC  
 CACACCCACTTCCACACTCACACCCGCCACCCCTGCTCACAAGTGCGTCCTC

>non-DHS28

CCTCCTTTGGTCAGTGGTTTTAGGGGCACTAAAGTTCACTTTTGTGGGTAACCTGCA  
 CTGTTAGCTGTTGATTTAATTAACCTCAGCCTTTCTCTTCCTTGACCAGAACACGGCC  
 AGCCGGGCTGCTCTGCAGACACCCATTTGGACAGCCGACGGCTGGAGGCGTCTGGCA  
 GGAGGAGCATGTGGTCCCTGGCAGCCACTCGCCAGCCCCGCTGTCGTTGACAGCTGA  
 GTGTTTTCT

>non-DHS29

CAAGGAAGATGACCTAAGGACCAGCTCCCAGCAGAGAAGCACAAGGCTGGAGTTAGT  
 ACAGCATGCCCGCATGTAAGCCCTGATCGCAGACTCTACCCTGGAGAGGTATAAGGC  
 ACCACTGATGATCAAGTCCCAAGGTCAGCAGGCAGCCTGTGGGGAATCCCATGCGAG  
 TCACCATGGGCCATCAGTGCAGGAGATGGGAGCGGGTGAATGGAGGAGCTGGAGTCTG  
 TGCTGAGGTCTG

>non-DHS30

CTGGAGTCTGTGCTGAGGTCTGGACGAGACAGGGCAACCGTAAGTCCCCTTGGCCT  
 GAGACAGTCCCAGTTTTCTGCCTGTAGCCTCAGTGTAGTTAACAGCAGTGTGCGCTTG  
 CACTCTCAGATGTCCTGGTTTTGGACAGTAATTATAGGGTCATCCTAAGGTGAGGATA  
 TTCTCTAAAGAAGAGGGGAACTAACACTGACTGCATTCCTACCAATGCCAGGGGCC  
 TTGACACAATTTCCCTCATTTAAGCC

>non-DHS31

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 AGGGCAGGGAATAGACATTCAAAGAAAGATCTGTGGCTTTGTCCAAGTCCACCTTTC  
 AGGTGCTAACATGTGCAGCGGGATGAAAGAGAACTCTCCACAGTGCCTGGGGCCAGC  
 TCCAGCAGGAGGAGCCGGCAGGAGAGAAATCTTTAGAGTGTTCTCTTTAGCTTACCA  
 GCCAGATAGGGAAAGAA

>non-DHS32

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 AAGTCATAATCATAATCATCCACTTTC AACAGTGTTTTATAATACTAAAGGGTAGAA  
 ACTCAAATAGATGGCCCTTTGTTTCAGCCAGACAGAGGAAAGGCCTGGATCTGCAAG  
 CTCAGGCCCTGAGCTTAGTGTGGAGAGACAGCAGCCCAAGGAAACAGGGGGATAAAA  
 TTGAGCAGCATCAAGAAACCACAG

>non-DHS33

CTGTAACCCAGACAGCTCATCTCAGGGGCCCAAGGAGAATATTCTGATGTGCAGAGT  
 TGAAATCTGGATTTGTATGTGCAGTATCTTGATTCTGAATGCACTGGGCAGGCTGA  
 ACCAAACATCTTTGGTTTTAAATTGGGCTCAAAGAGCCATTAGTTTGGCACCTCTCCT  
 CCCACCCTCACAAAACAACAAAACAAGCAGAAAGAAGCATGAGCAGGAAAGGGCTGT  
 CCTGGGGAACTACACTGG

>non-DHS34

CATCCTAGGCTCTACAGAGGGAGAGGGAGGCTTGGGCCAGCCCTCAGCCCACTCC  
 CTTCAGGGTGCCTGGAGGCTTGCACCCAGGTCTTTTCGGGTCTCAGCCTCAAACCTC  
 CTGAAGGGAGGAAGGAAAGGAGGGAGTGGGAAAAGAGAGAAGGAAGGAAACATTAGG  
 GATTGTGCCAGGCGCTTTGCGTATAAGTTCCCTCTTAATTCTCACAGTCATGAAATT  
 GGTGGAGGAAGACAGA

>non-DHS35

AGTGAAAGGCTTGCCTAGATAAGCTGCATCCCTTTCCCGTCTTCCCTCTGCCGGGA  
 TAGGGCCACCACATGGTTGGGCAGTGCAGGGAGGGAGTTTCCAAAGTCTAAGGCTA

GGCCATTTCCCAGGGTCTGGTCCCTCAAGGTTTTCTCCTTCCTTTCTTCCCTCCTTC  
ACAGAAGCCACAGATCAAAGACTGCCCCACAGCCAACCTCAGCTTCAAGAGCTTCAG  
TACCAC

>non-DHS36

GAACATCTGTTAATGCCTCTCAGGCCACTAGGTTCTAGGAACTCAGTTTGGGAAACC  
CCACCCTCTAAAATATAATCCTAACTCCTCAGTAGGCATGTGAGCCCTTCCATTGTC  
TGCTGTCTGCCTCCCTCCCCAGGATCATTTTTTCACCTCTCTTTATACTCTGACAT  
TCGCCCTAGAACTGTTTGTGGTTCCTTAAACATGCTGTCTTATTTCAAACCTTCAGTG  
CCTTTGCATATGCTAT

>non-DHS37

TTTCAAACCTCAGTGCCTTTGCATATGCTATTCACCAGCCTAGAATGCTGTTCCCT  
GCTGTCTCTGAGTTCAACACTGCCAACTCTTTGAAATGTCCCAGCTCCCTCAGGC  
TGACAAAGTACACCAGCCCCAATGTTCCCTGCAGTGCTAGCTTTATGCTTATCAGCA  
CTTCCCCAGACTATAAATGTGTTTTCTCGCCTGTAAATCGTCTTGCTTCTTGCTCTCT  
CCTGGCCTAATTCTTCAG

>non-DHS38

CTCTCTCCTGGCCTAATTCTTCAGCTCCTATCAATCCCATTAGATTCCCATCTCCCT  
TTAATACATTTCTCTTTTTTTTAAAAAAGTTACCAAGAATGAGTTTCTTAGTTGCA  
TGAGATCAAAAAATCCTAAATTTCTACTCAGAAAGAAGAGTTTTAAAACACTTTT  
AGTCCAAAAAATGCATGTTAAAAATGGCACCCCCCTTCCCCCAACCCCAAGCATA  
CAGGTCTCTTTTCAT

>non-DHS39

CTCCTTGATGATAATGGTAATGACTCCCCTTCTGATGCTAGCTCCTTTCATTGACAA  
TGTCTTCTTTAATGAAACCATTTTTATTCACTGACCACATTTCCAGTGATGACAGC  
AACTCGCCTCCAGAAGAGAACCATTCTCTGATGCTATCTTCCCTGCAGCTGCTGC  
GTGGATGTGCTGGGTGCTGAGCAAGCTGGAGCTCAGGCTCTCATACATTTTGGC

>non-DHS40

CTTCGGTCAACCCACATGTAAGTACTAGGTCCTGTGTTGCTGCTGGGAATATAGTGGTGA  
ATAAAACAGTTTCCACCACCAGGGGAGGGCCACCTAACCCAGCTTGACTTCCCAAAG  
GCTTTGACATTTGAGCTCAAACATGAAGAATAGATGATAGGTAGTAGTTTGGCTGGGT  
GTGGAAGAGTGGAGGTGGCATAAGAAAGGCTGTCCAGGCAACGTTTAGCACATGCA  
GTATA

>non-DHS41

GTTTGAGGCCTGAGAGCAGTGTGGTAAGCCCAGCAGGGAAGAAGCCCCCTATACTTC  
TCTAAAGCCTGGGTGCCTGCTTGAGGAGGGAAGGCAGGAACCCAGGGGCAGGGGAGG  
GGATCTCTTCAGCAATTATGATGACCACTGTAACCTCCTGGCCCAGGGTTCCCAGGA  
TACTGAGTAAGGGGCCCAAAGACTATAAACCCAGCTGTGAGAATGCCTGTTTGTCTG

>non-DHS42

TGGCTTCTAGGGAACAGTTAGTTGTTTTGCACATAGGGAAGGAGGTAGCGGGCAGGC  
ATGAGGAGGCTGGGCTGCCATGAGCAGACCAATCAACAGCCTCCCAATCTTCCCTAT  
CTCCCCACCTCACCCACCCAGCTCCAGTATGATAACCAGGCAACTGCGGCCAGCC  
CAAGAAAGCCCACACTTGTCTCCCTCTGCCACAGCAACAAAAGCAGTGCAAG

>non-DHS43

TCAAGCCACCTCACATTTCTATTGGTCCTCAAATTAACCTCCTCCTCCTGGAATGG

GATGGAGGGAGGAAAGCCCTGCCTCAAAAATTACCAGTAGAGTCATCAGCCCCAGTG  
GTAGCTGAAGCAGTATACACACCCAGGCATGCAAACTCACACACGGCATGTGTGCA  
TACCCACTCCCACATGCACACTCTCACACACTGACACACAACACTCACACTCAC

>non-DHS44

CTCACACACTGACACACAACACTCACACTCACATACAAAGGCACCCACACATGTTCA  
TACATGCCCGCACTCATAACATGCTTGCAAACATCATGCACACAATCATACTCCTATTC  
TCACACTCACACCTTCTCTCACGCACTCACACTCTCACTCTCATAACACTGTGACA  
ATCACATACTCACATGCAGTCTCACACTCATGCTCCTTTACATACTTACACGTGC  
ACA

>non-DHS45

CAGTCTCACACTCATGCTCCTTTACATACTTACACGTGCACACTCAGACTCACACAT  
TCATGCGCACTCACACCACCAGCCATCTTCACGCCTCTCCCCACCCTTCTCCTTCTC  
ACCACCTTCCCCACTCTCTAGTGGTCACAGACTCATTAAGAGTAGCAGAAACACAG  
GAGGCCTCCAGGGCTCTCTGGAAGGTTTAGGTATCTGGGACAGGAAGAAGTAGGAGC  
AGGGAGCTCT

>non-DHS46

ATCTGGGACAGGAAGAAGTAGGAGCAGGGAGCTCTTGTCTGTCCAGCATGACAGAAT  
CCCCAGGGATGGCGGGGAGCTGGGCCTTGCACTCAGGAACAGTGGCGGGGTCACTG  
GTGCTACAGCCACCTTCTCATCAGGAAAAGGAAAACCTTCAAAATGGTTCTTTT  
CAGCTAGTGCCCCCAAATCACAGCCCTGGAAATGAAGGAAAGGAGGAGAAAGAAGC  
AGGACAGAGCAGTTCTCTGACCACTTCAGGAGA

>non-DHS47

GAATGACTGAGGGTGTGTGGGAGCCTGAGAAGCCTGCTGGGGCTTCAGATCTGGGG  
GACCCAGAGTAGAGGTGTAGGTGGGAGGGCCTGGCCAGCCCCAGGCCTGCTACTCCT  
CCCCAACCCACCGCAGCCTGAGAAGATACTACTGACCCTCAGGTGCCGGGGGCAT  
GGCACTCAGATCCACGGGCTGCCCTTCTCCAGGGCCTCCAGGACAGCACCGAATCT  
CTGCAGAAGTTGGAAAAGCAGGTGTG

>non-DHS48

CTCCCGTGTGGATGTAACCTTTCTCAGTGACACGGTCCTCTCTTGCAAGTGGTGGCC  
ACGGGGTGTCTCCCTTGCCCAATAAGAGGGAAAGGCTCATGTGAGAGCCGGATGGC  
CTGCCTGGCCGGCAGATGACCACTTCCCTCTCAGACCCCTGGGACATCCGAGATGCA  
GGTGAGGGGTGGGTCACCTCCCCACACCCTTCCAGAACTTTCCAACCTGTTC

>non-DHS49

CCCTGTGCTTATGTTGCATTAAGTCAAAGCAGAGTGGTCTATTGATTTAGGAAACA  
CTAGCCCAAGGGGAAGAAATGACTAGAAACAAGGACTAAATGTTTCCATGTCAACA  
GAAAATAATGCTAGCAACAACAGCCACTGCAGTAAGCGCACTGGTCTCTCTTAAAC  
CCCAAATCGCCAGCTGTTCCGGCTCAGAACAGGTTGGAAAGTTCTGGAAGGGTGT

>non-DHS50

CAAGTCAGGCCATGCTACTCTTTCGGCGGACTGCCTTGTTTAACTCCGGAGTGCTC  
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AGGGCCTGAGCCAGGGCCCCCTGAGGAGTGAGAGCAGCAGTGGGAATGGAGCCAGGG  
TTGAGGAATGAGCCAGGGCTGTCTGATAGCAAACCCCTGGCCCCTGTGCTTATGTT  
GCATTAAGTCA

>non-DHS51



CGAGTACCTGGATGCACCTTCCCCCTGTTCCCCGTAATTGTTACTGCTCAGTCCTGC  
 TGGCTTCTGTTCAATTCGCTCTGCTTCAAAGGACTTTCTCTCCTGGAGCCAGATTGCC  
 TGAGTTTAATCCAGGTTTCCCTACTCGCTACTACTACTTACAGGCCTCTCCATCTCC  
 CTTCCAGCCTTAAACACCTACTGAGCTCCCCGGAATTCCCTGTCCACGTCCTACAC  
 ACTCTCCTCATGGAGTCC

>non-DHS52

TCAGTCTTGTTTCCAAAGGCTGTAGTTGGAAGTGTGCTTTGTAGTGTTCCCCCGCCT  
 CCCCCCTCCCTCCGCGGGGAGGGAGCGGGAGCTGGCGGAGATAGGAGAGAAAGCA  
 GGAGCGGATGTGAAGGGCTTTGGTGTGAACTTGGATCCAGCCCTTGCTAGAGGGC  
 GCAAACAATCGTCCCATATCCAAAAGTCTTACGAAGGGCGCCAAAAGTTACTTAAG

>non-DHS53

GTCACTGAGTGCAGAGAAAGGAATTTCTGTGATGATTCCAAACCTTAGAGTCAGTGCT  
 AAGGAAGAATCCATAGAGCTCCAAGGACTTCAACCTCAGGGGAGAAAAGCAGTAATT  
 TATGGATCTTTCTAGAAATTACGGTTGGGTTCTTTCCCTCTCAACCCAGGCTTCCT  
 TAGTCACGTGACTGGAATTTAATTATCAGTGCCATAAATAATCTTGTGAATGGAAGC  
 AGTGTATTTG

>non-DHS54

AGTCTTTGCAAGAAAACCTCCAAGGTATTTTCATGTAATCAGATCCAAGAATATGAACC  
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 AGACAAGTAAATCTAAGACTAGAGACATTTATCAGTGCAGGATACCTCCCCTATCTT  
 CACGATTATCTGCTAACAGCTATAACCCTTCTTCTTGGAGAAATTGCTCTTCCCCCTT  
 TCCAAGTAGTTGTGGTTGGACTGCTGGTTATA

>non-DHS55

CATATGCAAGGTTGGCATGAACAATGGGTCAGGCTGTCTCTTCTTTTACTGTGCCAA  
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 ATACCTACAGCATCTTCTTTCCAGATTTGAGCACTTATAGTCTACCAGGAGCCACA  
 CTTAGTGATTTAAAGTCATCTGTTTTAATTCTCACAGCAGCCGTATGATTTTCAAGTAT  
 T

>non-DHS56

AAAAGTGTGATATCTGGGCCAAAGATTATATGTGCTTCAAATGTATTTTGTAAATAC  
 CATATTATTTTCTAGCAATATTGTAGCAAATCACATTCTCAGAAAAACAAAGAAAA  
 AGCCCAATTCTGCATGTTATTGTGAGAACTAGATAACTTCGATTTTCAACAATTTTA  
 AATTTGATCGGTAAGACCTTTTTTTTAACTTTCGTGTCCAAGTGCCCCATAATTAAG

>non-DHS57

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 TTTGGTGTTTTGGCCTGGGATAGGTGACAGATTTTCTATTGTCTGGTTACCTTCCT  
 CCCAGGAATGAGATCACAAAGCAACGTCATGGAGTCATTACTACTATATACTCTAC  
 AGGTCAGAGATTGGTCATGG

>non-DHS58

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 AATAACTTGACATTCAAGTGCTGTTCTAAGTATTTCTGATTTTTTACAGTCCTAAAT  
 GGATTGGCTTCTTTCTGGTACAATAGGTGAGGCTACATGTGAAACACTTCTGCAGTT  
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ATGATTT

>non-DHS59

GACTGAACTGCACCTTGGTTTCATATTATTTGCTCTATAATATCTGAAACCATGATA  
 TGATTAACCTTATGTGATGCTTAAGACAAGTTTAAAGACACAAGATGGGAAATAAAAT  
 TTGGGAATATTTTTTTCATGGGTAATGTGGCTAATGTCTCTACCTTATTCTCAGCAAC  
 ATATTAGAGTATCATATCTAGAAATGTGTAAGAACACCAATCACAAAAACATGAGTC  
 TGCTTAGTTAACACAGAACACATGGAT

>non-DHS60

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 AGTTGGGCTAGAACCTGGAAGTCCGGATCTTGGAGTCATATCGGGCATCTATCATG  
 AAGCCGAATAAAACCATAGAACCATCTGCCATAAATCTCTGCCTGTATTAAGTGA  
 GTGGTTCGCTG

>non-DHS61

AACCATACAAAAGGTGGAGCTCTGGGAGGCTTGATGACTGAATGTAAGAATAAGGAA  
 GCAGATTATTTATTGCTTAGAATCTTAGATTAAGGCCAGCAGCAAAGAGACACGTTT  
 CTATCCAGAATGCCTGTCTATCAGCAAATAAGAAAAGCAAGGTGATTATGTAATCCT  
 GGGGCAGGAAGCCATTTTGTCTGTAAGTGGAGCTCTCTGATTACTTAGATTCAAAT  
 CCAGAAACTAATGGGCCTT

>non-DHS62

AATCCAGAACTAATGGGCCTTGCCAACTGTGGTCTAGTCCTAATTTTCTGTCTCA  
 TTGAGTTTCTAGTGCTAAAGCTGTGATTGACAAAGATGGATATTTAGGCCATTGGAA  
 AAGGATTATCTAGAAGGAGTTGCTGGGGAACATGACACTCCCACAAGCTTCTCCAAG  
 GCATTTTTTACTCTGCCTTCCCTACAAAACAAGAAGATCCCTTCCCCTGGGAGGCA  
 AGTCTAACAGCCAGGATTGAAG

>non-DHS63

CAAGTCTAACAGCCAGGATTGAAGTATGGATAAGGAAAGACAGATTAGGAAAGAAAT  
 AGCTAGCACTTTTTGCCTACGTCCCTTTTGTACTAAGTGGCATCGGTCATTAAGAGA  
 AGGATAGTCAGATTGAAGAGCCATCCTGGGTTCTGAGCAACAGAAAATTGATGGG  
 CCTGGTCCTCAGGACTTATTTCAACTATTAAGAATATGCAGGCTTCCAAGGACATTG  
 GCCTTACAGTGTCTCAGTCAG

>non-DHS64

CATTGGCCTTACAGTGTCTCAGTCAGGGTTCCCTGTAGCTTCAGGATTAATATTTGCT  
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 AGTAAATGATTGTTTTCTGCTATCTTCCCATTTTTGTTCCATTGTTGAATATTGGGC  
 TATGGCAGAGGTTAAGTTTACCATTTAGTTCATAGATTGTAGGAAGATGAGATGTCA  
 CCTTTGGACAGGAGAGGAATGGATA

>non-DHS65

GTTTTCCATTGAAGCACACACTTCTCCCCATAATAATATAATGCACAGCACCTGTCA  
 GGGATATTAACCATACATACCCACTCAAATGCTCCCTTTCCACCAAGCTTATTA  
 ATAATAGTTTGTGGCCACAATTTCTTCCCTTCTCATTTATCCAATACACAGCAATCT  
 TGTTTTCAAACCTCTATGCTGCTACAGCTGTCCACAGTCTCATCATACGCATTCTTT  
 GC

>non-DHS66

GGCCTTCGAAATCAAGGTATAAACTACAACAAAACACTTTCGAGATCTAGTTTGATT  
GAAGAGTGCATTCTTACTTATTTATATATTCTCTGCAATTTCTGATTCAAGATAGTC  
CACAATTCTAAAGGAAAACCAAATAGAAATAATAATTACAAAACAAAATAAAAAGTA  
ATTGAGGAAGATAAATTGAGCAACTTATTCTTGACAACCTAGCTTTTTTAACAAACAGAA  
AAGTGCCTAAATACTGCCTAGTTGTTTAAAGTAGGCTG

>non-DHS67

CCTGAAGTTCAGAGTCTCTTAAATGCTAAAATATTAACAATACCATTCCATTTTTT  
CCCCTAACACTCAGAAGCATACTGATACCCATCCTGTACACAGCCTTTTTCTTGCCTG  
ATAACAAGAGCACTAATGACAGAGCTATTGCATCAGGTTGATTAATAAACCCCGTCT  
TAGGCAGCCTCATCATGTGGATAAAGAAAAGGAGTTAAGATGATGTTCCCTGCTGCCT  
TCCCCAACATAGAAACACACCCACAACA

>non-DHS68

AGAGTTTGGGTCTACAGGTGATCTTTTTTCCGGACTTTTAGCAATTGCTGTGGAAAA  
AAACATTTTTTGTTCATTGACATTTATTTATATATATAAATGGATGAATGGATGGATG  
GATAGATGGATGTGTATTTTTGAAGTCTAGTGGAAATGTTTGATCTCATCCTGGAGC  
TAGAATGATAAATACTGTTTTCTGGAGCAGAATGAAGCAGGGAGATGTGTAAA

>non-DHS69

AAAACATGGATCATCACTCGAGACAACGATTTACATCGTCTTCGTTTTTGGATGTCC  
AGTTTTCCGAAGCATGCCTGAGAAAGAAAAGCATGCAGGTCTCACGGCCTCCTTTGT  
CTAAACCGGCGCAAGATTCGCCTGCCACCCGCGGGGAAAATCGCTACTGGGATT  
TACAGAACTCAGGTTGACCCCACTTGAAATTGACATCCCACCCTTCCGGTCTTTGA  
ACAAGAGCTGCCATTT

>non-DHS70

AAAAGGAGTGGCTGGCAGAGTGTCTGGCACCAGGAGGGGACATGAGGAGAGACCAG  
TGGACCAGTGCATGGAGCCTTGAGGAGAAACAGGACAGGAGAAAGGAAGGAACTAG  
CATTTATTAATCACTTACTGTGTGCTGGGCCCTTTCAGGACACTTTATGTAAATCC  
ATGCTTTTACTTTGTGTAAATATTCACAGCACCCACCACAGGGAAACATTATTATTC  
C

>non-DHS71

GCCTCCGTTTTGTTCCCTTTACTTACTTGTGAAACCATCTCACCAGCCTGGCCTAGAGC  
CCAAGAAAATATTTATGGGCATGTCTGGAGGTCCAAGGAGCAAGAACTAGCATCCTG  
AAGAACAAAACCTCTGCTGAGCTGGAGTGTAGTTGACTGACTCATCTTGGTTTTAAA  
ATGAAAGTCCCTGCATTCCAGGAACCCCTTCAGTCTTATTAATAAAAAAAAAAAGATT  
ATTGGTCACTCAAAGTGCAAGAATCCT

>non-DHS72

ACAAGGAGGAACATTGCTGTGATCTGGCAGGAGCTTCCACTGACTTCCACCTGGAA  
CCTGCCATGGTGGCTGCATTTAGGGAGCGGGCAGAAGCAGACACCAGGACCTGTGT  
GAGAGGCAGCTCAGCTCTGCTGGAGGCCATAGGGGAAACGTTGCTGGAGGGACATTA  
CTCCTGGGTGACCCACTGGATGGGGGTGGGGGAAATTCCTCAAACAAAGTTAACCTGG  
AATTGGTAGTTTTGACAACG

>non-DHS73

CATCTGTTTCTTGGAGGCTTGCCCCACATCAGGTGGGTGGGACACACCAGGAGGCT

GTGCTCAGGATTTCTGGCCAGTGTCCCAGGTCACCAGGTCACCCACCCACCCAGAGA  
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 GTGTAGTAGCAGGTCAGAAAAATGGGAGAAAAGAGCACTGGGCCTCTGGACCCAAAGA  
 GGATGGAGTTTCAGACT

>non-DHS74

GAAAATCGTTTGACCTCATCTATGCCCTGAAAAAATATTTGGGACTCCCAGGATTTG  
 CGGACCACACCTTGAGAACTGTTATGTTACTCAATGGCTGGCATAACAGTAGGAATCA  
 GATAATTAGTATGGACTGAATGGAGAGGCCTGGGAGCTGGGGAGGAAGTGGGGGTCG  
 GGTGGGAACATATGGATGCCTTTCAACCCAGGTGAAATTTGGGGATTGTCCACGTGC  
 TCCTCC

>non-DHS75

CTTTCAACCCAGGTGAAATTTGGGGATTGTCCACGTGCTCCTCCATTCCCCATGTCA  
 GTGTAGACAAATGTTGAGTCATAGTTTGCAAAATGCCTCTCAGCTGGGCCAGGAGCC  
 CTGGTTTCCCTGCTGGACCCACCCCTCACCCCTCCTTCCCAGGCAGGCAGGCAGGCA  
 GGAATGCGGGGGAGAGGTGGCTGCAGCTCCACCGCCCTCATGGGGGAGGAAAGTGCC  
 AGACATTTCTTCAGGACCATC

>non-DHS76

GGAAAGTGCCAGACATTTCTTCAGGACCATCCATCAAGTGCAGGCAGGCCTCTCCCC  
 TGACCTCCCAGGCCTCTTCTGAGTCCACCCTGTGGGACCTGGACGTAGGGTGGCC  
 ACTGGGAGCTTGAGGTCTGGCGTGGCACTGCTCCCTGGTACACGGCTGGCAGTTTG  
 GGATAAAGAAAGATAAATTGCTCCCCTCCTGTCCAGTGACTCTTGTTTTGTGCT

>non-DHS77

CAGTGA CTCTTGTTTTGTGCTTCCCGCCCACCCTTTTTGGCACCAGTCAGGCTCAAT  
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 ACAGCACTGGGAAGGCCTAACCAAGAGTGGTTGTCTGTCAACCACAGCTACTGAAC  
 TTCCTGATGGGCCCCGGTGGCCCTGTAGCCTCCCATGCCCCAGTTCCTCCCCACAAG  
 GGGAGCAGACAGCCCCTGAAGAGACTG

>non-DHS78

CGGCCAGAACATTTCTTGATTACCATGATAGACTTTGGAGATACAGAGATGTCAAGA  
 GACTCGACCCCTTTTCAGGTGGAGGGGGAAAGCAGGAGTCAGTGAAGCAGTTGCATTG  
 ACAACTAACCATGAAGGCTTGAGATTATTGTTAGAACAGAGGTAGTCATATTTTTTAC  
 AAGGACAACAACCAATATAACTTGGAGCCAGAGGAAGAAGGGCTCCAGGAGTCTG

>non-DHS79

CATTAAAGACTGTGGGACCAGGACCCTAAGTCTCCTTTCTTCTGGGTGGGGAGTTC  
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 ATATAAAATAGACACACTCATTTTTGGCTCTTGGTTTGTGTGTGGGAACAACATGAG  
 TGGGAAGGAATTTCTGGGTGCAGAAGGAAGCAGCCGGGGATTTGACCAAGCAGGGTA  
 TCAG

>non-DHS80

CCAGTTCAGTCCATCCAACCTGGATGGTAGCTCCCCACCGTTTTCTCTCTGCCCTG  
 GTCCTAGGGGCAGGGGTGCGTGTGCGTGTGTGCGTGTGTGTGTGTGTGTGTGATC  
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 GGGAGTCCCAGCCTTTTAGTCCCTGTCAGGATAGTTTTATTCTTGTTCAGCTTTGG

GGCCACACAATTTTCAGTACAAAAGGG

>non-DHS81

AGGTGAGATCATGGGAAAGACTTCTCACATATGTATGTTAGGGGTACAAGATCTGTG  
GTCAAATGGGCTGTGTGATCCCAGACAAATCACTTACCTTTTCTGAGCCCCAGTGG  
TAACTCAGGATACCCTACCTGCAGGCTTGTGGAGAGGATGGAGGGGGTGGTGGGAGA  
GTA CT TGTGAACTGTGGGGTGACATGAATGTTGTGTCAGTTGTCAGGGAAGGCAAGTCA  
TGTCTAGTGGGACTGAGATAGAGCTACCCTGCA

>non-DHS82

CAGAGGGACAAAATGACCTTTCTTTCAATGCCATACACCACCTTTGTCTAAGGCAGTT  
GAGGAAGGGAAGTAGATATAATGGAGCTTAGTGGCAGAGCAGCTGGAATCCTGAGAG  
AAGAGAATAACTTTAGTTCAGAGCAGGTGGGGAAATGAGAGATTGAGTAGGAGGACC  
AAGGTTGAGGGAAGCAGATCTTCTTAGTTGCTGTCAGCGGCTGATGGGGAAGATTGT  
TGGTAGAAG

>non-DHS83

CTTTTGCTGCCTGTCGTCACCGCCACCCCAACAGCCGGGCAGGCATCGCTGCCGCCA  
TCTTGGAAGCGGGCGCTGCGGGGGCGGGGTCTCGCGTCATGGGGCGGGGCCTCGGGG  
CGGAGCCACCCGGGCTGACTAGGCACCCGGTCCCAGACACCGCGTGGCCGGGGGCTT  
GTGAGGGAGCAGCGCCTGAGCCTGCCACCTGGAACCGGTTGTAGGCGACCCCTGG  
GGAGCGGGTGTAGGGTTCAACTCCACTACGCAGACT

>non-DHS84

GAGGCTCATGGAGAAAGGAAAGGCAGGCAGAAGGGAGGGAAGCAGAACGGCCAGAAG  
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CACCGCAGGACACAGACTCCAGAGATGCCTACCTTGGCTCTTCGGGGTCTGGGGCTG  
GGGCTTCCAAGAGGAGCCTTGACGTTGCACATGGGACCTTGACCGCTGGCAGGACTC  
TTCCGGCGTAGGATGT

>non-DHS85

CTTTTGTTTCAACAGAGGGCAGTAGAGAACAGCAAACAGTTTACATTTCTAAGCCCA  
GAAGAAATAAAACAAATCCATTTACAACATTCTCCTCAGGTCAAGGTACCCAAAATA  
TGGCACACTGTGCTTCGTGTGTTTATAAATGGGGCATGTCTTGTGAAAGTAGGGCA  
GATCCCGGAGAGTCAGCGACTCGTAGACGACCCTTCGTCTTGTGAACAACAGTTT

>non-DHS86

GGTTATCTGGTTCCTTGCTGATCTTCCACTACAATGTACTCCCTTAAATCAGAGGC  
AAAGCAGCAGCATAAATAAGGTCTTGGGAAAGACTACATTCCTTGAAAATAATTTA  
ATATAAATCTGTTCCCTCTCAAGTGTCTTTTTTTAATGTGATTTTTTAAATTA  
TAATAGCATCATGACTCTTGAAACCTATATAAATCAATAGGAATGCCTTTTAATACC  
ATAATGAACATTGAAAGCTGAGTGTGTTATTACCACC

>non-DHS87

ATGTGCATTCTGGAAAGGAGTCGGGTTTCAGAGCCTGATCCGCAGCGTGGCTCCTC  
ACAGCACTGCGAGCCAGAGCTTGGCGCGCGGTTCCGTGGGAAATCTGAACACTGG  
CGGCTCAGCAGCCCGGTAATCTTATCAGGGCCGCAAGAGAAAGCATTTTGGTTCCAG  
AGAAATCTGAAGGCAGCTCCGCTTTTCTCCAGTAATAATATTTAAGTCTGTGGAGCC  
AGCCT

>non-DHS88

CCTCTAAGTCACAGTTTCTTTCTTCTGTTAAATGAGAATCCTGGTACCTTCTTTAGAA  
 GAGTGTATGAAATGATGTATGTGAAAATACTTTCTAACTATGTTTACATGCGCTAAT  
 CTTGCTTTTTCTTAAAGTTGATATGTGAAGTTTCAAATGTTTAAAATGTGTATTTTC  
 AGTTTTAAGAAAACCTCTAAACATGATTTGTGGTTAAGATTGAAAAATTAGTGGAGCAG  
 TTGTCGGTATG

>non-DHS89

GCTTCAGTTTGGAGATAGGGTAGGGTGCATGGAGGCTAGGGCTTGGCATCAAATGCA  
 GGTTCCTGGGGTCACCCCTTAGGCCTCTCTTCCCTGGCTGAACCTAGGGCTTGGCCAG  
 CAGGAGGCCTGCTGGAGCTCTGCCCTCCACCTCTGGCAGGCAGCCAGGCACCTGGT  
 TCTTGTCCAGCTCACAGTTCTTGTACTCAGTCTCTCCCTGCTCCTGGAAGGTGACAA  
 TGACGAAGCCCACAAAGATGTTTCATCAT

>non-DHS90

CTCAACAATCAAGTTACGGGACAGGAGTTAGGTCCGGCGCCAGGAAAGACCAGACCCA  
 ATCCTGGAATGGCCCTGCCTTTCAAGAGGTTGCCCATCTATCCCTAATCAATCAGT  
 ATTAACAATCTGCCCTGTGGGCAGAGAGGCATACACCTATGGGGACTGCGTGCATT  
 TTGTCAGAGACCCCTGGTCAGGCCTACTTTGGAGTGACCAGTCAACATAACCATCAAA  
 CCAT

>non-DHS91

GGAGTGACCAGTCAACATAACCATCAAACCATCAGAGAGTTGGTGGGTTTTGTTGGACG  
 CCTGCCACAGGTAGCAGTAGCACCGTGGGGGCTGCAGAAGGGCAGGCTGGCTGCCTG  
 GTCCTACCTGACCATGTCCATGAGGGACCTAGGCCCCAGCCATCACTCACTGAGGCC  
 ATCCCTCGAAGGTGGAGACCGTGAAGAGGGACATCATGGCTGAGAGCACATTGTCTGA  
 AGTGAAGTCGCTGTGTAC

>non-DHS92

GAATCTGGTCTCCACCTAGACTGAGGTCCAGACATGCTCGATTTCTTTTATCATGGT  
 GAAAAGAGCAGGGTCCCCAGTGCCTAGTGACCACCAGCAAGATGAGGCCCTTAGCG  
 CTGTGGAGCCCCACCCACTAGGGTGTGTCTGGACTGCTCAGTGGGAAGGGGCAGGGC  
 TGTCAGTCATTTCCCTCCCTCTGCATCATCACCGACACTCTTCTGGCAACCAGTCTT  
 TATTCA

>non-DHS93

ACAAAGTTTGGCTTTCCAGTAAGGAAAGGGGCTGGGGCCAGAATGGTATGGGGAAGG  
 GAAGGGGCAGAGCTGGGGAGTTCTGGAAAGAGAGGGCAATCCTTCTGCCAGCACCG  
 TGGGGCTTACATAATGGGCTGGAGGTGGGGGGCAGCCCCAGCCAGTGAGTGTCCAGA  
 GCTGAATCCTGTACCTTCTCCAAGAGGGTCTCTCAGGTCTGGGAAGCAGCGGGGCA  
 TGGAGAAGGCAGTGCCTATGGAAGGGGAG

>non-DHS94

ACGCTCCACTGTGTGCTACAGTATACATCAGGCATTTCTAGTTCTAGTCCTAGTCCT  
 GCTCTTAACTTTCAAAGGCAAATCAGGTTCAACCTCAATGTGAAAGAATAACAATA  
 AATCAGAGAGCATTTATTATAAATTGCCAAAGAAGTTTGTAGTCCAGTCAGCCAAGGT  
 GCCCTCTATTTCTCAAATGCTAAACCCACTCAGAATGAGAGGAGCTGCTCCATCAA  
 CCGAGTAGATCCAGA

>non-DHS95

GCTCAAAGGAGCATTTTACAACAGGAACCATTTATCCCTGGTAGCTTGACGTCCAGCC  
 CTGACACGATTTTCTGATTGACTAAAATTAGGGTAATGAGTTATGAGGGCAGAGAAT

GGAGCTGCGATCCCTGTAGGCGGGGGCAGTACCGCCTCTTATTTCTCTGCCAGGT  
GGTTAAGTTGGTAGATTGGGGTGTAGGTGTCTCTGGAGTTGGGCAGCAATGGGTGGG  
GTAGTAGAAGGACACCTGGTCT

>non-DHS96

CACAGCGCCCTCTAATGAAAGCGCCGCGCCGCTGCCTGGCCCGCTTGCCCCGCCTG  
GCCCCGCTCCCCCTACCCCTGCGCCAGCGAGTCGGGGCCCTCGGGGCTACCTGGACGC  
TCGGCCAGGACCTCAGTGAGTCCAGAACATACTGAGGGAAAGGGCCGCTCGGAAAGA  
TCTAGGAATGAACACCCATCCTCACACCCAGGAGTGCCTTGGTTTCAGTTGAG

>non-DHS97

ATAGGTCAAGAGAGGCAGGTCTTACCTATTACCCCCCAAACAATATGCTTCCCTT  
CCCTGTTTCTCTTTCAGGATTTTCAGCAATCACTGCCAGATGCAATCAGACTCCTTG  
AATAGGAGCAACTGAGGCTTGTGTTGTGGCTCGGATTCATTAGAATCAGGAGGCTGAA  
GAAAGGAATAAATTACTTAATTGCACAAAAAAGTTGCAGCCAAAGTGATGGTGAGAG  
AAACTGATTGTG

>non-DHS98

CCTAATAGTGTGAGCTGGGGACTTGGAGCCCTGAGGTGCTCCCTGGGGGTGAGGGGC  
AGTGAAGTAGCACCAGTGGGACTTAGGGGGACACAGGGGAGCTGCTGCCTTCCCTGG  
CCCAAGTAACACTGGGAATCAAACAGTCCCTAGGGTAGGGTGGGTAAAACAGGAGGC  
AGGGGCTTCTCTGGCCCCAGTCTCCAGGGCACCAGGCAGTGTGGTGCTGCCTGACA  
CAGAC

>non-DHS99

TTCAGAGGACCATCTTTCTCTTCTGCAGGTGTCAGCGGAAGCAGTGGCGGGTGGAT  
CTGCCGGCCACCAGCGTGGTGATCACGTTTCACAATGAAGCCAGGTCCGGCCCTACTC  
AGGACCGTGGTCAGGTGAGGCCAGGAGATGCATTACCTGTCAGGGGTGTTAAGACAT  
TAGCTGTGTCCAGGCACAGTCAGACCAGGGCTGTCAGTGGGGGCTGCAGACAGGGT  
CTCCTGACTGCTCAGCACAG

>non-DHS100

AGACAGGGTCTCCTGACTGCTCAGCACAGGGTGCAGTGTGTAGCTCCTCCAACCAAG  
GGTTAGGACCAACATATGAGAATTTTCTACCCCAGGCTAAAAGTTTATACCCCTAAA  
AGACCTATAAACTTTATCTTCTTGTCTTTTCTTAGCGTGCTTAAGAAAAGCCCGCCC  
CATCTCATAAAAGAAATCATCTTGGTGGATGACTACAGCAATGATCGTGAGTACTGA  
CACTGATTTTATCCCTGTGTCTGG

>non-DHS101

CACTGATTTTATCCCTGTGTCTGGCTCTTCTCTGGGCACCAGTCTTCTCTGTAGTGGG  
GGTGCTAATGAGGCGTGAACAAGCCAGAAATCAGATCCACAGAAAGAAGAGGTGCCT  
CTGTGATGCCCCAAGGAGATAATCGGCCCTTAGATGATTGAGAATACTATGGTTGAA  
TGCAAAGCCCTTTATGAACTCCAGGTTCAAATGCTCTGCTTCTTTTCTTTTCTTAG  
CTGAGGACG

>non-DHS102

TCTGCTTCTTTTCTTTTCTTAGCTGAGGACGGGGCTCTCTTGGGGAAAATTGAGAAA  
GTGCGAGTTCTTAGAAATGATCGACGAGAAGGTAAGATTCTTCTTAATTCAGCGCCA  
AGACAGTTGAATTCTGACTTTTCTGTAATAACATAAAGAAGTGCTTTAGCTCAAAG  
AGCAATTAATTGTCTAGCTTTTTTCTGTCTCCCTCTACCAGAGCCGCTTGGGAGACT  
TCTCCCAGCAAACACAGG

>non-DHS103

GAGAGGATTCTCCCAGAGATGAAGTACTATATTGTTTTATTCCCTTTCTACTGTCTT  
CTTTGCTAAAATGTTCCCACCTCCCAACTTAATAAAGAAAATCCACAACCCTGTCTCA  
TGCATAAGTAGCTATGACCCATCTCTCTCCTTTTCATTCCCAATCAGTAGTTGTGAAT  
GGTTTTCCACGATCATCACCTTCACAGCTATTCAGCTCTTCCACTTGGCTCCACTCC  
ACATTGCTTACTAAGGTCA

>non-DHS104

CTCTTCCACTTGGCTCCACTCCACATTGCTTACTAAGGTCATTAGTATCTTTACAGT  
TTCAGAATCAGATGGACATTTTTTTATTCTCTTCTCACTTGAGAGGCAGTGTTCATGTC  
ATGAAATGAACCTCAGCTTGCTCCTTTTTTCGAGATTTGACTTAAATGTCACCTGTTT  
CAGCAAGGCACATGCTGACATGTCTTAGAAGTGTGGGTACAGTTTTCTCTTTGTC

>non-DHS105

CCGACACATACATTCCATTTAGAACTTTTGTCAATTGTCTTATCATGACTTACAGATC  
TGTCCCCTGCAGTGGCATAACGAGGTTCTTGAGGGCAAAGACTATATCTACATTAATC  
CTGTCCCAGTGTCCGGCCAATAGAAGGTATTCAGTAATAGCTATTGAGTGAATAAGT  
TAATGAATGACTGAATGAATTAGTAAATGAATACTCATAcataAGTCTGGAAAACAG  
AGACACGAAAG

>non-DHS106

TCTCAGCTAAATACCAGGCAGACCAAAGATGGCTGTTTTATTTTTCTTGTGCTTCAA  
TAGGCTTACAGAGAGCTCTGGTCCAAGGCGTAATTATACGGATGTGGTTGTGCTTCA  
GTCACACCAGGAGGGACCTGGAAAAATACTTCTGGGAATGGCACGTTGACTCCCAAG  
CCACCATAGCAAGACTCCAGAGCATGTTTTATAAACCACAGCTTCACAACAGGAG

>non-DHS107

TAAATGTGAGGCCACATGAAAGACAGTACATCTGTAAATTCTATAAATTGTTAAAA  
GCAAAAAAGGGAAAGCTTCAACACCCCATCCCCTAATATTTTGAGTATTAAAAGCAC  
AGCTGAAATATTAGGATTTGAAATCTGATACTGCCCATGTACAGTAAGTAGCTTTGT  
GACATTTTTATCCAGCTGTGGAGAATCTCTGCACTGTTCATCAGGTACAACAAAAGAT  
CAAACCC

>non-DHS108

AGTTGGTACCACACATGCATCCTGCATGTGTCCAGATCTGGGAGAACTACAGGATCC  
CAACTTGTGAGGTGGACTCCACAGTTTCCTCGGGCTTCCTGCAGACGCCTGCTTGGT  
ACCACCTCTCCAGTGTGAGCAGAGCAACCTCAGGTCCCCTCAGAGGATAGGCAGCCA  
CTCAGCATGCAGGGGCTGAGGTCATGGACCCCAAACATCCCATAGGGTCAGAAAGAG

>non-DHS109

GAGAGGTTCTTTACGGAGTGTGTGATCCGCATGAGATGGCATGCCGAGTGCCATCTT  
TGCATGGCTTTATTTTTACTTTTTAAAGATGAGAAAGCTAAAATGGAATGTCTAAAAG  
AGTATACAGGTCCTAAAGCCACACAGCCAGGGTGATGGAAATATGATATGATTCAA  
TCCAGACTCAGCGGCCCTAAATACTGTGCTTCAATCTTTAAAACCCAAAATACATGT  
GGACCAATGTTTGGAGCAACAAGAGGCTGTGCCTTTCTACAT

>non-DHS110

ATTCTTAGGGCCTGAAAGGAAGAGCGGATGGAGGAGCATGAAAGAACACAGGAGCCT  
GCAGGTGAGCTGGCGTCCAAGAACCTGTTTGAAGTGAATGTGCTTGTGCCGCCATT  
CCCATTTTTAAAGAGAGAATCCAACAGAAAAATGTGTTGATTCCTTTTCAGATTTGCC  
ATGCCTGAGAAACACCGTTTCATTTCAGGCCATGGGACTGCACCCAAAGTTCTTGCC



>non-DHS111

TTGCTATGTGGCCAAGAACAATCAAGAAGATATGCTCTCCATGGAATATAAATCTCC  
CTCCACTACATATAGTGTAAATTTATCTCTTTATATGTAGCTAAGTTTCTATTTGTAA  
TGCATACAAAGCATCAGAACAGATGAGAAAGAAATAAAAAGATAAAGTGTCTCTCCC  
ATTTCTCCCCACTCTCTTTTCATTGCACACTCCAGAGGCAAACGCTTTTAAACG

>non-DHS112

CATGTTTCCTTCGTGGTGGAGCCATTGATGCCTGATTGAGAATCAATTCTTGAAAA  
ATTTTCTTCTGTCTTCTTCAATAGGCCTTTGAATATACAAGACCTCTTCATACTGTA  
TTCTAAAGATACATTTAACCTACACATATAACACACACACAAAGACATTAATATATA  
AAGAATTAAGCTTACATATCATACCAAATTGCAATGTCTTTCATCTTCCAGTATCA

>non-DHS113

GGCACTGCTTCTGTAGGAACTTTCCATCCCAGGGGGTGGGGTGGGGAGGGGCTGAAG  
CTTTGGGGGAGTGCAGGTGCTGTGGGGGTGAGCACTCCTCATGCTGCTCCCGTGCTG  
CCTGATTACCGCACAGGCATTTCTGGGGCAGCCCTGCTATGCAGGATCTCCGAACAT  
CAAGGGAGATGTCAGCGCCTCTGCTTAGCACCAACGTTCCCAACCATCCCAAGAA  
GCACCTATGAATGAGGCAC

>non-DHS114

AACAGTATTTACTTAGCCCTGTGTGGCTCCACACAATGCTTTGTGTTAAAGGATTCT  
TAAGTGTGAGACATGGGCCCTGGACCACAGAGGGGACAAGACATGCACCCATGAGAA  
GATCAAGAAATCATGCTAGGTAGCGCATAATTCAGGACCAAGTTGTGTGTGATTGTT  
GGTGAACACATTAACAACAAATCAGCAAATGGAGAGAGTCTGTGGCCTTCTCCAGA  
GATCAGGGAAGCTTTAAAGG

>non-DHS115

TAGGTGGTGGTGATATGTGCTATGAACGAAAAATGAGGTGGCTAGGAGAATAGAGTG  
CTAAAGGTGAGGGGATGGCCAGTTTAGGGAAGCTGGCGTTGGCCTCTCTGATAAGAA  
AACATTTGCACAGAGAGCCTGAGCAATGCAGGTGTCCTGAGGAATGTCCAGGAAGGG  
TAGATAGCAGGTGCAGAGGCCTGGGATGGGAACAAGCTTTGCATGTGGCAGGGTCAG  
CAAAGGTAGAATGAAAG

>non-DHS116

ATAGCGTGGGTAACCACAGAACTTGTGGAATCTCTTTTCTAGAAAACATGAAGAA  
CAGGAGAGAAGCCAGTCTGTCTGGAAATTGCTTCAAATCTCTCTATAAGCACGATG  
CTGGACTGGATTAGATGCCCTTGAAGGATCCTTCCAGACCTACACCACTAAAATGC  
TAAGAAAATAACTAAAATAATTCTCTATCACTTATAACCTGGAAAATAAAATAAAT  
ACAATTTAACATCTCCAACATAGTCACTAGAAACA

>non-DHS117

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CCTCTGTCCATAGAGTTCTCTTGTTCACGCTGCAGGAGGAAATGGAGATTTCCAAGT  
GGGAAGGAGCCTTCCCGATGCTTTAACTCTTCACTGAAGGGAAGAGGAGCTGCAGAG  
AGCGAAATAAAATCTAAGCCGCCCCAGCTGCAGCGCCTGGGAGAGGAGCAAGGCTGG  
GCTGGGGATGGAGGCCAAGGCAGCTGGGATCACTT

>non-DHS118

CTTGAGAGGGAAAGGAAAAGAGCAAAGGGCATTTTTGATTGTCTTTCACAATCAGCA  
AATATTTACCCAGTTTGTCTGCCCTAGCCCAGGTTCCACTGAAGGATACACGAAAGT  
GGAAGATGTTGTCTGTGCCCTTCCCCTGGTACTTACAGCACAGTTATAGGAGTAG

AACGTTTGCATAGAAAAGCCACCAAGACAGGGAGGCCTTTAATAAGGGCCTATGAGT  
AGTGTGGGCAGGAAGT

>non-DHS119

TTCCTAGCTGTGATTAGGAAGTCAGAGTTTTGGGTGGATGGAATAAACTTAGTGGG  
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TTAAGAATTACGTTCTAATCATAAATTCATAGCATATATAACATAATTAACTTTTCA  
GGTATAGTAACATCAATTTTAAAATTTAACACTACCAAATTTGTTGACCTACACAG

>non-DHS120

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TGATATAAACAATGGGTGGAGCAAGGAGTAAGGATCAGAAGGCCTACAGAGGGCACT  
GACAGTAAGAGATTCTGGCATCAGGAATAGCTTATTCCTGGCACACATTAGGAGTGG  
TCACAAATGACATCAACTTACCACAAACAGGTTGGCAAACCTGTCCAAGTTGATGTTG  
AGCTTT

>non-DHS121

ACCATCTGACCTTGGTTGGAGCCCAGCAGTCCCCACCCCCACCCAGTGGAACAGA  
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TTAGATGGGCTACAGATTAGTTGTGGTTAGAACCCAGATGGGTTACCATCTTCC  
AGGGGCTGGGAACCCCTCCACCTTGGCTGAGAGATGAGCCCACTTCAAACACACT

>non-DHS122

AGAGCATCCTGCATTTGTTGCCTCGGGGTGCAGCCCCAAAGATAAAGCCAGCAGTGT  
GCAAATGACAAATGCTACCCACCTCCGCCAGGCAGCCAGAGCCAGGGCCGAAGGAC  
GCGGAAAGGAACTGGTGTGGAAACCTGCCAGGAACCGCACTCTCAACTGAGAAGAG  
TCCGGGGCGCGTCCCCGCCCGCCCGGCTGTCACTCAAGCTCTCCTGAACTT

>non-DHS123

TGCCTTTGTTAACCTTATCCATTTGTTGACATGTAGACTGTTTACAAAAAAAAAAC  
ACATGGTTAAATGTTAAATTTTAATTAAGGCCCCCAAAAATTAATATAACTTTTTA  
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TACTTTGTGTTCAAAGAAAATTTCAAACCTGCTGTTGGGGAAGGACACAGAAAA

>non-DHS124

GACAGGCTTTGGGTATAGAGTGCTGAGGAAACTGAAAGACCAATGTGTCTTTCTTAC  
CCCAGAGGCTGGCGCTGGCTCTTCTCTGAGAGTTCTTTTCTTCTTCCAGCCTCAC  
TCTCCCTGGATAACATGAGAGCAAATCTCTCTGCAAAAAGATATGGGGCAGCACTG  
TCCACAACAGCCTCTACTGGAAACAACCCAAGCACCCATCACAGAATGAATTAG

>non-DHS125

CAGCATTTCCCAGGGTTTTCGGTAATTACACTCCATTCAATATCTGAAGAATTACAA  
TAATTCTACATGGAATATACTTGTGCCCTTCAGATGCAAAGCCTTTAGAGAAGTGAA  
AAAACAACTTAAAAGTAAATTAGCAGGGAAGTTATCATAGTTACTATTTATTTACAG  
GCTCCATATATCAAGGGCTAATTATACATTGTACGTTACATTTTCTGGGAGGGATTT  
G

>non-DHS126

TCTTGATTCCCATAAGAGGAGCTTAGCTAGTGCGGCTCGCTGGCGCCACCTAGAGCT  
CCGAGGCGGAAAGGCCGTGCGCTGCCCGGCTCGCGGCTGTCAGCGCGTGGAGACGG  
CTTTTGCCGCGAGCAGCAGCAACCAAGAGGATCCTGCGAAGAAACGCGACAGTTTGC  
GTTCCAGCGGGGAACGAGCCCTGCTATTGGGGGTGGGGAGCACTACATGGCAGTGGC

>non-DHS127

GGTGATAATCTCGGCTCCAGATACTGTTACCTCCCTTTCCCCTTCTTGTGTGGTGTG  
GTAATAGCTGTTAATTAGTTCTGGAGCATTACAGTATCACTTGTAGTTTCCCCACAC  
CTTACCCACAGTAAACACCCTCTTTATTTAAAATAGTATCTAATTACTCAATTAGTAT  
GCATTCTCATTACACTCAAACATTCAGCTGAAGTTTTCTTCCAGGACTTTGACTGA

>non-DHS128

GTTGGTTGGCTCATGTATTTTCAGGTTGACAGGCCTTTTTCTGGAAGTAATGCCTTAA  
TTCAAAGAATTATAGTAGATTTCTGAGAAAGTTACCCCAAATTTTATGAAAACATAT  
TTACTTGGGCAAGATGGTCAAATAGAAGCATCTAGCAATTCTCCCCACTTCAGGAAC  
ACTAAATTGAAAACTACACAAAAAAGAACCCTTCATAACAACCAAAAATCAGGTGAG  
CAAACGCAGTACTTGGTT

>non-DHS129

ATATTAAGGAAAGAGGCGTTGAGGAGGGTAGAAAAGACAGTCTTGAATAATGTACAC  
CACTCTTCCCTCATCCCCTGGTAGCAGCCACCTGGCACAAAGAGAGAATCTGTGTAC  
TAGAGAGAGGGAGAGTGCAGTACTGTGGGACTCAGTGCTGCCTTGTAGCAGTGGAA  
AGCAATATGGGGCAGAACTCAGCTTGCACCCACAGAAGGAGCATTTAGACCAGCCCT  
AGCCAGAGGCAAATCATCCAGCCCAGTAGTCA

>non-DHS130

GATTCTCAAGAACCAACCATCATCATAATTATGAGTTGTAGGCTCAAAATGGAAAA  
TAGGTAGTATTTTTGGGTGGTTATTTACTAGTCCCTCTGTGCAGGGAGAAATCAAAC  
ATCACACATACTGGCATATCTGACAAACAGTGTCAATATTTTTTAAAGTACAATGGA  
GAGTCAGAGTGGGAGAAAATGAGAAAACGAAGTTTAGAGGAAGAAGAAAACCAGAAA  
TCCTTC

>non-DHS131

CAGTTTAGCGGGCAGAGAGTAGTTTACAGTGGGAGGGTTCACTCTGTTTCATTCATTC  
ATCCATCTCTCACTCCTTCCCTCCCCCTCTTCTTATTGAGCAAAGTCACTGTGC  
TAGACACTGCGGATTTGGTACTAAACAAGCGGAAATGGTCCCTGAGTGGGGAGTAAC  
CCTCTGTGCTCCCCAAGCCCCTGAGCCTGCGACCTCCTGGCACTGTTGGGAGTTCT  
CTAGGGG

>non-DHS132

CTGTTGTCTTGACTGCCAGGTCTCCTGTGGGGCCCCCTGGGGCCCTGTGATACAACCT  
GTCACCCTGAGATGGACTATACTGACCTTCTACCCAGCCAGACTTTCCCCAGGGCCT  
CGCGCCCACTTCTGTTCCCAGAGCCACCTGGCCTTGATGTCTGTATGCAGTGTATGG  
GGCAGGGAGGGCTGGACAGGGCTTTTGTGGGGAACCACAAATACCTCTCGTTAGGC  
C

>non-DHS133

AGATCGGAAATCAACCAGCAGACCCCGCCACCCCGACGCGCGGCGCCGCTGCCA  
GTCAAGAGCCCGGCGGTGCTGCACCTCCAGCACTCCAAGGGCCGCGACTACCGCGAC  
AACACCGAGCTCCCGCATCACGGCAAGCACCGGCCGAGGAGGGGCCACCAGGGCCT  
CTAGGCAGGACTGCCATGCAGGTGCGCTGCGCCACACGTGGGTTCTGTGTGCATTTGT  
GTGTGT

>non-DHS134

CTCTCTTGAGGCTGACAGGAAAAGCCCAGATCAGCAAACCTTTCCAGTAAAGAGCCA  
GATAGTAAATATTTTCCACTTTGCATCCCAGAATGTCCCTGTTGCAGCTACTCGACT

CTGCACGTGTGGTGTGAAAACAGCCACAGACAATATGCAAATGAACAGGGCGGCTGT  
 CTTCCACTATTTCTCTTTTTAAACGTGTAAACTCTGTTTCCAAAATTAGCTGGTG  
 >non-DHS135

GATTTCTGTCTGGGGAATCAAGTTTTTGATTTGTGCTACCTAATGGAGGGGAAAATG  
 CTGAATTTCTTGCTGCTCTGTTTGAGAAATAGATGGAAGCATGGGAGGAGCCAGAGA  
 CCTCTGCAGCAGGATTTGGTCTAAGTAGAAAAGGAAGATTTTTGTTTCAAATTGCCA  
 GCTGCTTATGTCAGACTGACTCCCTTATTATGCCTCCAGTAGGCCTGTCAATATGG  
 >non-DHS136

TTTCTTTGCTCAACCACTCTTCTCTTAAATTCTTGGGATAGAAAAGAGGACTTAAAA  
 GAAGTTTCAGTGTGGAACAGACATTTCTTACCATTTTCCCCATTTTCATCTTTTCCAG  
 CACAAGCCCTGTAGGTATAAAGTTTGACTTGTGATTTTCAGAAAGGCAGACAGTGGAA  
 GAGGATGGCTGCAAAGCAGTTCAAGAGGTACACACCAAGTAAGCACAGGTTCTCTCA  
 TCAGATTCT  
 >non-DHS137

TAATGCCAGGCTGACAAAGGACACCCGGAAGAGCTAGCTGTGGAGGACCCGCCTCCT  
 GCTGCCTGTCCCCTCTGCAGCAGCTTGGTGAGCCTCGAGTCCGCCATGGGGTCAGGA  
 GCCGGGTGAGACCAGCCCGCATCCTCTTCCCATCTGCACCCTGAGCACTTGCCTCC  
 TGGCATCCCACAAGGGGCCACTGCTGCCTGTTCCATAGATGGGGACACTAAGACCCC  
 AGGTCACAG  
 >non-DHS138

CTCTGGTGCTTCTCTTCAGCAGGTGCCCGGGGAATGGACCTGCCGATTCTGTGGGTT  
 GCAAGTGTCCACAGCCTGAATCTTGAGGTCCCTGGTCCATGAAGGGGTCTGAATGAC  
 TCCTGATGTTGCTGTCAAAGCATTGGACAGACAGGGATGCCAGGCCCTTGCCACAG  
 GCCCGGGCAGGTGGGAGCCGGCTCGTGGATGAGGAAGCAGAGATTGTGTCTGAGA  
 >non-DHS139

TCTTACCCATTTGAGGAGTTTCTTCATTTACAAACCTCTCCTTCTGATAGACTTTAT  
 CACTTTTGTCTTATCATTAATCCCTTTCTCTTCTCATCTAGGTATAAACCCCTGTA  
 TACTTTACACCTTCTTTTTAAATGCTTAATATAAGTAACCACAGGAGAATCTCTTCTC  
 CCCTTGAAAACTGCAAATAAAGATGTCAGCTATTGAGTATATTTGTGGCGTCTCCA  
 G  
 >non-DHS140

CCTCCGCTCCTAAACCACTTGTGGCGCGTGTGGGAATACAGGGCGCTCTGGCTCTT  
 CTTGGGGCCTCCGCTGGTCCGACCATCTGGCAGCTCTCTTAACCACCACGGCCACCC  
 CACGAATGGAAGTTTGGGACGTGCCTGGGTTGCCCTTAAGGAGGACACCCCCGCCCC  
 CACCGCCATTATGCATATCGTGGGAGAGGCGCGTACAGGGCTGAGACACTCCTCAGG  
 TCCCAGAAC  
 >non-DHS141

AGTCCTACCAGGCCAGACAGGAGGCACCAAAAGGACGCCAGAGCCTTACCACCCA  
 GCAGGTTCTGTACCAACTGATAAAGTTGATAAAAGTGACCCCAACCCTTAGTAACCC  
 ACTGGTGTAAATATAGAAACATCTATAAGGGCGTATGTGTGCGTGTATCACCCTAGCC  
 ACGTACATAGTCCAGCAGCCAGCTCTATTGAGAGCAATCGGCCACTTCACTTCTCTC  
 CCTAGAACT  
 >non-DHS142

ACATATCTTCAGGGCTCACAGAACCCTCTGGACCACTTCCCAGGCTTCAGTTGCTC

ACACACTCTTTATCCTTCCCCAGTCTCCTGCTTCCAATCAGGATAGAGGTCAGTACT  
 AACATCCACCCCCCTATAGCTTTAGGCAACTCCCTTCCCTCTCTCTGCTTTTGTCCC  
 CCCATCAGCACTGGGCTAAGAACAGTGTAGGGGAGGCATCCCTGGGCCTCCTCAGGG  
 GTGACAGTCTGATGTGACCTTCCTCCACCTTTC

>non-DHS143

TCCAGTCCATGGAGGGAGATACTCATGTATTTGACATTTGAAAACCATTTTTTTTTAG  
 CAACTATGATAGTGGTTTCTAGACTTTGTCCTTAAGCACAAGCCATTCTTCCTATAT  
 GACATGATCATAACAAAGATTTATATATAGCTCCAGAGAATAGTGAGATTTGCAGTC  
 TTCTGATGGATATCAAAGTTGAAGGCTAAAAGACACTTTGGTGGTATAGCTGGG

>non-DHS144

TGAAGGCTAAAAGACACTTTGGTGGTATAGCTGGGAACAGATTCTGTAACAGAAAGA  
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 ATACATAATGAATGTATGTCAATACCCCATTATTGTCACTTCATGTTTTAAGTATA  
 GAGATACTGTATAGGTGATAAATAATGCATTTGTCAACATTAAGTAAGTCATCACAA  
 ATGTGCAGTCA

>non-DHS145

GTCATCACAAATGTGCAGTCAAACCTTTAGAAATGTTTAGATCTAAGAATCGTTAACT  
 TTCATTCTTTTGCCATCTTCCAGCCAACTCACAGCTACATCAAGATCTTGGAAAGCT  
 ATATGACCCTACAGTATTAATAGTTGACAAAATAGAAATAGATGGTCACGGACTTGG  
 GACTGTGGCTAGTAGGTGGCAGAGGGTACCGTTTTATAAGAGAAGTTTGGGCTGTTCC  
 TAAAC

>non-DHS146

CTGTGGTCTATGCAAGTCAATTCCTTCTGAACCTCTAGGGCACTGCTCAAGTTGCTT  
 AGCCTAACCCCTAGTGGCTGGGGAGTGGGAGGTGTCTGAATTTCCCCACCCTCCTTC  
 CAGGCCAACTCCTTCCAAGAATCACTCCAGGCCCTTTCAGAAGATAATTTTGATTGC  
 ATTGTATTTCAAGGGTTCTAATTTTATTTCTTCAGCTAAAAAATAAGCTCCTTCCTG  
 GGACAGTTCTATGTCT

>non-DHS147

TTCTGGGACAGTTCTATGTCTTGTTTTTCTTCCCGCCCCCCCCCGCCCCACAGT  
 CCTAGCCTAGCTGGGCACAAAATAGATTATCAATAAATTCTTGCTATATAAATGTC  
 TCCACCAGGGCCAGAGAGCTTCACTTGAGGCAGTTGCTGACAACTGGATAGTCCAG  
 GGAGGCCTCCACAGCTCCTGAACTGCAGTCCTTCGATTTTTGGCCAACTAGGTCA  
 TGTCTGAAGG

>non-DHS148

AAACTAGGTCATGTCTGAAGGGAACAATTAGTATGAGTGTCTGGGACTCTTTCCTA  
 TTTCAACTTTACCTGCTTTAGTGTACAAAAGAACCCGAGAGATCATTTAATCCGGGT  
 TTTAAAACCCCTAGATCTTGTGAGAATTGAAAACATATGAAATAAAGTGCAGCATT  
 GCTCACCAATCAATTCACCCAACCTCTATGCCCAAGAGGTTTCTACCAAACCCTT

>non-DHS149

AGGGCCTGAGCACATTTCAAGTCTGTTATGCAGGCTGAGAGGCCAGGCTCCTCCAAGG  
 CCCCATGAGCTACTGGTTGTTGCAGCCCTGTGAGGCAGAGGAGCTGCCTGCCTGCTT  
 TTTTCTCCTCTTGTGAGGAGCCGGTTGTTAGAGGTCTTCAGGTCCTTGATCTTCAC  
 CTGGTTCGTAGTCTACCCGCATAGTGGCCAAGGCCTGGTTCATCTCCTCCTGGGGACA  
 GAC

>non-DHS150

CTCCCAGTGGCCTAGAAAGCTAAGGCCATGCACCAGGGCAGGACAGCACAGAGGCCT  
 CACTCGGGCCAACCTAGCTAAAGGTGCTGCTATGGCAGCAGGCAGCTCCCAGCCCCT  
 AGGCCCTGCCATCTCTAGGGCTTGAGCCTGGGCCAGAGATCTGAAGGAGGTTTAGG  
 GTCAGGGTTCCTCCATCCTGAAGTTCCGAGTGACAAATTTAAAACACAACAAAATAATC  
 CTTTTGTAAAAGAATGACCCTGGGCC

>non-DHS151

CAAGGAGGAGTGAGAATGAGAGGGCCAGCCAGTGTGTGAGAAATCAGCCTCCCCAAG  
 GCAGAGGTGAACCCTCAATCGCCCCTCCTCCCTTACTCGCTCACTCAGCATTACAG  
 GCAGCAACGTGGTCCCTGGTCACCATGGCAACCAATGGCCAATGCCTTTCTCAAGGC  
 CAGGCCCATCTGCCATCCCACAGGGAGATGTCTCTGTGGAAGATGGGAAGCCCAGC  
 CAACTCCCAGTGGCCTAGAAAG

>non-DHS152

AAAGTATGCTGGCTTTTGTTCACAGTGACATTTTCCAAAGTGGAAAAAGTTAAAAAT  
 ATCTCCACCTTAAGTTCAGATGAAAAGTCACCCTTTGGGTCGGGAATAGTGAGGGG  
 ATGGCTAGGCCCAGGGACTCCCTCAGGGGAGAGCGCTGAGTGCCATCTGGGCTGGGG  
 CTGCAGCAAGGCAGGGCTGGACTGCACAGGGAGGCAGGCAGACCCGGATCCAGCAGCC  
 TCAGGGCCCAAGGAGGAGTGAGAATGAGAG

>non-DHS153

CCACAAGTGAACCTCCTCCAGGCGAGGGGATGCCCTGCAGCATCCAGCCGTCAAAC  
 CTCCTGTAGAAACGGGAGCGAGCATCAAGCCTGTGTGTGTGCATGCTTGGGCGGAGT  
 CTACCCGGAGGAGAAAGAGGCTTCCGGGCTGGCCCTCAAAGCCGGTTGTACAGGCG  
 GCAGCTCAGGCTGCTCACTGCGGGCCCTATGACCCTTTCTGGGGCCCTGCTTGCTCT  
 CTCCAGTCTGCTTTT

>non-DHS154

CTTGACTTCACATGACCAAGAAGCTAGGTAATCCTGGGGCATTGAAAGCTGCCCAAG  
 AAAACAATTATGCTGTTTCTTCACTCTCATCCTGGCCTCAAATGAATATGGGAAGTA  
 GGAGACAATGAGGTGATTTTTTCAGGATTTACTAACATTCCTAATTTGCTATTCTCC  
 TTCCTTTAGCACAGTTATCAGAAACCATTGAGTCATACCTTGCCCTCCCTGTTTTCTT  
 CTGCCATTGAAATAACAGGGGCCTAACT

>non-DHS155

ATCTGAGAGTGCCATCTGCTTTACTCAGTCTACTCAGGTCACATATGAATCTCATGC  
 AAAAAATGCCCTCACGGAACCATCCAGGATAATGTTAATATCTGGGCACTGCATGAC  
 ATAGTCCAAGTGGACATCTAAAGTTAATCATCACAGCTTCCTTTACAAATCAAAGTA  
 ACTGTTGTATATGAATGCAGCAGAAAACCTTGACTTCACATGACCAAGAAGCTAGGTA  
 ATCCTGG

>non-DHS156

GTCAAAGGCCTGAGAATCAGAAGAACCAATGGTTTTCTTTTCAGTCTGAAGGCCAGAA  
 GCCTCTGGGCCCCGGGAAGAACCAATGTTTTTCAGTTTGAGTCCAATTTACAAAAAAT  
 AATGTCCATTTCTGAAAGGCTATCAGACAGGAGGAATTCTGTCTACTCTGAGAAGC  
 CTTTTCGTTCTATTCAGGCCTTCAATTGATTAAATGAGAGCCTCTCACATCTGAGAG  
 TGCCATCTGCTTTACTCAG

>non-DHS157

GGGCATCTGGGTCAGCTAGTAGCTGTAAAAAGATTAAAGGGAGGTGAAGACGTGTA  
 GCACTGAAGGCTGCACTGGCTCACTGATACCTTTATTTTCTCAGAATTGAAAAGTTT  
 TTCATAGTTGTAAAGATAGTCAATACCATAGGTTTCACTTTTACTGCAGGAACCTTTC  
 CAACGAGAGGTTTCTCTCGTTCTTTCTTTAATTTTATCTTTCTCTCACTAGGCAATG  
 CTGCACTTAACAG

>non-DHS158

GAGGAGAGGCTTCACCAACACGGGGCTTTCATCCACAGCGAGCGCAGAGCGGGCTTT  
 GCCAGTTTATGGTCCTTTCCACTTTGCCTCTCTCTTTCCCTCGCTCAGTCTCTTTTC  
 CCTCTAAGACTTAACAAAGCCCTCATAAAACCCAAGCAGAAGGGTGAAAAGTAAAAG  
 CAACACAATTTCAAAGAGAGAGTGCAAATAGCAAGCCCTCTGGAAGAGCTGAAGAG  
 GAAGC

>non-DHS159

CATTAATTCACATGAAGGCTGGTTGTTTTTTATGCCACCTTCTCCCCTCTCTCTCTT  
 GCTCCCTCTCTTACCATGTGACATACCTACTCCCTCTCTGCCTTCCACCATGAGTAG  
 AAATTTCCAGAGGCCTCACCAGAGCTGAGCAGATACTGGTGCCATGTTTGTACAGCC  
 TGAAGAACTGTGAGCCAAACAAATCTCTTTTCTTTACAAATTACCCAGTCTCAGGCA  
 TTTCTTTATAGCAATGTAAAACAGACAAACGCACC

>non-DHS160

TAGTTGATGCAAATCTCAGACAGGTTTTTTTTTTTTTCTTTTTTAATGGTCTACTAT  
 TCTTTGTTAACTGAGACTCCCTGTTCTCCCACTACCCAACCCATAGGTGGCCTGCAG  
 CACCTGGTAAACAGAAAGGATAGATTTAATTGAAAGACTCCTTTTATTGCAAGGCAA  
 TTGACAAATGTTACCAGAAAATAAACTCCCACTTCCCAAGGGAACGGATTTCAAT  
 CTGGTGGAACAGGCTAGACTACACGGAAC

>non-DHS161

AGGACAGAAGGGACAGGATATCAGCTAGATGTCATTGAATATATTTTGTTTTGTAGA  
 TTTGGCTTTTCAATCATCTACTTGTTCATGACTGTAACACTAATTTAAATTTAAA  
 AGATTCAATGCTGAAAAGCCAAACTCAAATAACAATAAGTCTAACTAAATATTATTG  
 GTTGATAACCACACAGAAAATAGAAAAGTTATTCTATTCTGATGACTTAGACTCT  
 CCTTGAA

>non-DHS162

ACACATTTCCAGTTGAGAATCAGGCACTGACTCTAGCAACCCATGAACTCCCAGAAT  
 CTGAGATCAAGTTTTCCAAGTGATAGGGTTGAAGCTCTCTTGTGTTTTGAGGTGAC  
 TAGGAAGCACATTTCCCCCTTTCTATAGAGCTGGAAAATAGCAGGGGTCTCTGACA  
 ATTCTCTCAAAAACCTGTTCTCTCAAAGTCATCCAAGAATCACTCTCCCCTCTGCC  
 TCTTATACAGCCTTGT

>non-DHS163

CACTCTCCCCTCTGCCTCTTATACAGCCTTGTGGTAGGTGGTGGGCTAAGGTGTCTG  
 ACTATTTTAGGGTCATCATTTAGCAAGTCCAACACAGCTTCTCTGATCTCTTTTTA  
 AACATGGGAAGAAGTATCCTCTTTTGTCTCAGCTTTGGAGTTTCAACTGATAGTAA  
 AGGTGCAGGAATTGCAGGCCTGATGGTTGAACAGCTCTGGACAAATTTTCGACAGCCA  
 TCACAGCAGACTAGACCACAGA

>non-DHS164

CACGAGCTACAGAAAAGTGGAACAGGATATAGTCACATTCAGCCTTCAACAAAGAGC  
 AGCTTATAGTTATCTTTAACTTTTCTTGAAATCTATATAAATAAGGTGAAATTTTGT

CTCTTTATCTGCTAGTACATAACAACAAAAAAGTTGCATGATAAATTCTTAGCAAG  
 CACAAAGGTTAAGTTTTGGATTGCCTAACTTAAAACATGAGTGAGATGACTTATGCT  
 CATGTGGAGCCCT

>non-DHS165

AAAGACCACATTGAGTGTATTGGAGAAAAAATTACTTATTTTTCAAGAATGAAGAAA  
 AGGAGACATATCCAAGCCTGCTTGGTGCCTTACATGGCCTTTAACAGCTTCTCAGA  
 AAAGAGCACTCCAGGAATGGGATCAGTTACACTGATCACCATTTTCTCTACAGTGCA  
 AAAAAAGAGGATACTATGCCCTGTTTCTAATGCTGCACTGAAAGGATCAGGTAAGA

>non-DHS166

TGCACTGAAAGGATCAGGTAAGAGAGAGTTGCCATCTTAGTCTTTTCTACTCATATG  
 TGGGAAATAGAATATGATAATGAGGTGGCATGCAGAAAAAGAAGAGATTACCTAGTG  
 ATTTTCATATGAAACCATCCATCCCCTTCACAATTGTTAAGTACCTAATTGAACAAAG  
 TTCTGTAACAGGTATTTTACCAGAATAACTGTGTAGTACCACCTAGAGACTTATGGT  
 TCAGGCCCTTAT

>non-DHS167

GGTAAGTGGGATTTGGGTTTGTTTTTGTAAACTGAACTTTTCAGTAAAACAATGTGC  
 ATAACTCTTAATAACATACTTCTTATTGAATTGTTAACACTTTAAAAGCAGCTCATG  
 CTTTACTACATATAGAACTGTTTTAATGCTAATGAATGTTTGAATTTTGGCTAATA  
 TTTTTATATGATGACTAGAGCATTATTTTTCCCAAGTTTTTATATAATATAAATAGA  
 AAGTTTGGGCATTCGATACTAG

>non-DHS168

GCAGATTGGAGCTGTCCTCAGGCATCCCTGGAGGCCAACGAGCAGCCCGCCAGGC  
 CCGTTGTGGTTGACAGAGTTGGTGTCTGCCACCCGAGGGCAGGACAAGTGGATGAC  
 CCCGAGCAGAGCCCCAGTAGGGAGCTGTAGGGGGCCTGGAGCTCACCTCTCATTCTC  
 TTACTIONAATGGAGAGAACTGCCACCCGCTCAGAGGAAGCGAGGCACCTCTCCTGTCCC  
 GCTCTCCCTGTGGGCTACTCAGAG

>non-DHS169

CCAAGCACTGGGGATATAAAAGTGATGAAGGCACAGTTCCCTGCTCTCTAGAAAGGAG  
 CCCATGGATTTGGCCTTCTACCTTTGGTGTCTCAATTCTGCGACAGTCTCGGCAAA  
 AAACCAACCGGGCATAAAGACTTGACATTCTGCACAGGAAGGAAGCACGCAGGGAC  
 AGAATGTCCATTTGTGAGAAAAAGGAGATACAAAAATAGACATCCCTGGAGGGCTC  
 CTCCTCCTTCTTTCAATTTGATCC

>non-DHS170

CCCTCCCTAGAGAAGACAAGACTGTTCAACAGCATTGCCACCCCATCTGCCAGGTGG  
 CCGGAGGGAGCAAAGGCACAGCCTCCAGGGGCCCTCTGCTCTGACCTGGCTGCCTG  
 GTGGAAAAACACTACAAATCTGGTAGGAGGTGATTTGATTTTCTTGCCTGGTTGCGA  
 TGCAGTTATGGTGTATAAAACAGAGGGTCCGAAAGACTCTCACAGGGAAGCAGAAG  
 GAAATGGTCTTTTC

>non-DHS171

TGCTTAAAAGAGAGGCCCTTAGGAAGGGAGACACAGCAAACTGGAATCTAAGTTTGG  
 GGAGTACCTCACACGGCGGATTTGACTCTCAAGCATCATCCGTAGATTTGGTTTTGT  
 GTTACTCCTGGGTGTCTTTGTGTCAGTTCCTCCAGGGGTGCCATGGACTTGCTAAAAAG  
 GTGCTGGAATCAAAATTTAATTCACGTATTTGTATTGATTTAGTTATTCCTCAGGC  
 CCCATCTACTTGCAAAGATTTTCGAG



>non-DHS172

CATCTACCTCATAATCTCGTTTTGGTCTAGTTGTATCTTTAACAGAAAAAACTTGG  
GAAAGTGTTTAATATTAATAAAAAAACCACAATAAATCCATTTTCTACTTACATCGT  
TTTGTAAAGTTCAACAGAACAGATTAATTTAAATCTGAGAAAGGACAATAATATGGA  
GGATGGAAGAGTAACTGATAAAATAAGTACAAACCATTAAAAAATGGTTATATCTAT  
TTTTCCACACACAGTGACAGG

>non-DHS173

GTTGTGCCATTTTCATCAGATCTTCTTATAGTCAATGTCACATTAAATTAGAATCTGA  
GTAACATAATGTTTAAAAATAGCTGATATATTTGAAATTTAGGCAAAAAACTCATTTT  
TATTTGTAAATGTGCTCAGTGTTAACTTTATTGATAATAACCAAAAACAAACCTAA  
TATTTTATGATTTTAAATTTATTTTAAAGCACAAAATAGACCCATGTTGGGGATGAA  
TAACATGTCTGAG

>non-DHS174

AACCTCCTCAGGGGATTAGTTCTCAGGGCCTGGTCCGCTAGAAGCCAAATGCCTGTG  
CCCAGCCACCCGTGACGCCTGCAACAGGCAGGAGATCCCCAACAGTTACTCCCAGC  
CTTCATTCCACAGGGTCTGGTTTTCTGGAAGGTGGGAAGTCCCAGGGTCTGAGGAG  
AGGGAGCGCAGGCCCCCATTTGTAGGAGTGAGTCAGCTGACCCGCCCCCGGGTTCC  
TAATCTCACTAAGAAAGACTTTGCTGA

>non-DHS175

GTGCTGGGTTACCTTTTCACTCTGCTGCTAGCCAAGCTCACAGCAGCCCTCAGGAG  
CCCTGTCTCTCCAGCTGCTCATGAGCTTGTTTTCTTTGGCCTGACACCACCTCCTTG  
CTCCAGCCTCAATGTGTGTGTTACTTATTTTTAGAAGTGGGGGTAGAAAGTGGAGT  
CCTCCCTGCATCTTATGAAAGGGGCAGTGTCTCAGAGCTGTATCCATCCCGTTTTCGC  
CATTCTGTGGGTGGAGGGTG

>non-DHS176

GAGGGTGTCCCCTGAGAGTGCCAAGGTAGGCGTCTGGATTGTGCCATCCACACACCC  
TCTTCTACAGCTCCAATGGAGTATGGTGGGAGTGGAGTTAGGTGTCAGTGCTCAGTT  
CCTCAGCCTACCATCTTTGCCAGGAACTCCCTGCCATCGCTTCTCCATGTTCTACC  
CTTTGTCTTCTCCCCAGTGCCACAGACCCCTCAGCCCCAGTCCCCATGGCCTGTG  
TGTTGTTGCTGAGCACAGT

>non-DHS177

CATTCCATGATTATCCTCCTATGGCTCGGACACTGTGGACTGCCGACCACTTCTCAG  
CACAGTGGGCTGGACCAACCCTCACCCCTGTAGGCCAGCAGCACCCCTGGAGCCCAGC  
GTATCCACATCCCATAATATGAGGGGCATGCAGTCTCAGTGTAGTTGTGGAGCCCC  
TCCTTCTGGCCAGGTGCCCCCGTCCACCTGTGGCAGCACAGTGTGCAGGGGGCTA  
CAGACCACGAATGGGTC

>non-DHS178

AAAGAGTTGGGTGGCACTGAAGCCTGGTGCAGGGAGGGGCCTGCCAGGGACTGGAAC  
TCGATGTTTGGGGACAGTTTCTTGTCCCCAGGGTCCCTGGGCCACAAAAGCTGCAG  
GGTCAATCCAGAGACCCCAAAGCCCTGGCCTCCTGCCAGCCCACCTTCACTGCCA  
CCCCTGCATCCCTGGGGTCTGCTGGGTGCTTCTACCTCCTCCTCCATCCTAGCAAGC  
TCCTATTC

>non-DHS179

CTCCATGGCACATGAAAATGACATGGAATTCAGTTTCAGTGCCCCGTGAATGCCTCTT  
 GCTGGCACCCAGCCTCATACTTGTACACATTGTCAGGGGCTGCACTGGTGCTG  
 TTAGGACAGAGGCCATAGGCTGCAAAGCTGGTCTCTCCAGACAGGCTTGCCGAGC  
 CCTGGCTCAGGCTCTGTGGATCCATGCCGAGAGGCCAGGGAGGCCAGTGAGGTGCTG  
 AGGAAGGAT

>non-DHS180

GAGGTGCTGAGGAAGGATCGGCCCATGCCAGCTCTGGGCTCTGCCGTGGGTTCGG  
 GTTTCATCTGATGTGATGGGAATGTGGTGTGGGACAGAAGAGGACAGCGGAAGGTG  
 ACACATGTAGCTTTGCAGGGGCTGTGGGAGGAGTCATGGGGCCTGGGTGGAGGTGCT  
 GGAGGCTGACGGGCCGAGTTTCCGGAGCTCAGAAGGCTGGGGAGGTAAAACCTGAGCA  
 TCATCAGCCAG

>non-DHS181

CTCAGACAGGACACAACAGGAATCCAAAATGGCTTTTGGGAGGTCACAGGGGTGAAA  
 GGACGGTGGCTTGGGTCTGGGGGGAAGGAGAAGGGCATGGAGACAGGGTGGGACAAC  
 TCTCCCAGTAGAGCTAGGACACACGCCTCCGCCACATCCCAGGCACCCTGCCGTGCC  
 CTCGGCTGCCTGCTCCCTCGGTCTTCTGGCCACGATGGGGTCTGGGGTCTGGGT  
 TCATCTCCATCT

>non-DHS182

AAGGCTCACCAGAGGACTTGTATCCTCCATGGAATATAGACAGCCTGGCTTTGAATT  
 TTGGTCTTGCCAATTACAAGCTGTATGGCTGTGGGCAGGTTATAGAGCCTCTCTGTG  
 CCTCAGTGTCTTCATTTGTAATAAGGATAATAATAATAATATCTTGGAGTTGCTGGA  
 AGAGTTAAATGGAATTAATACATTGTAAAGTGCTTAGAATAGTTCCTGGCACATG

>non-DHS183

GGTTCGATTCTCTAAATCACAAGATGCCAGGCAAAGAAATGCTACACAAGGGCTCTTT  
 GTCCATGGGAAAGGCACACGCTACAGAAAAGTATTTTAAGAAGCCAGCAATGACTGC  
 AGTGCTGCACGTAAAATGTCATCATGTTCTTAATGAGGCAATTGCTTGGTCAGTAAA  
 AATACTCTCGCCCTGGGTGGTTAGTATGTTGAAGTAACTTGGACACTGCATGTGGC  
 AGCCACAGCCATCTTCCCACAAG

>non-DHS184

AGCCATCTTCCCACAAGAAGTTAGGCTGCATGTAAATAAAGCCATCACCTACCCCCA  
 AGTGAATCCTATCTCCTTCATTGGACATGGAATTTTCTGGGAACCTGTGTCCCTGT  
 GCTTCTGGCGAGGTGTCTTCTTCTTAAAGTCGAGTGCACCATTATTGTGTCTGTTT  
 GGAGTACTGGATATCAAATTAACCTGTGTGAGTGTGTCTGCATATCTCTGTCTGTGT  
 AAAGGGATTTGGAA

>non-DHS185

TAGTGCTTCAGTGTACCAGGTTGGTTGGTCCACTCATTCACTCATTCATTCCTTCAT  
 TCACTCATTTTGTGAGGCTGTGTTAGAATAGGAACAACACAGACTTCAGAATCAGAG  
 AAACCTGGAGTTCAAATCCCAGCTCTGGCTTTCCTTGCATATTCCCTGATGTCTACT  
 TATCTTTTAGCTGTACTGAAAGTCATATGTCAAGCATCCAGCACAGGACTCAAAGCA  
 TTAA

>non-DHS186

AAACTGAGAGAGGGTGAAGAGAGGCAGGTTTCCAAGTGTGCACTGTTAATGCCTACA  
 TAATCAAGACTCAGCTGTTTCAGCACTGAGTGGGAGGGTATTTCTGGGAGACGGGTGG  
 AGCTTTTCTCCTCCTTGTGGTGTCTTCACAAATTCAGCAATCAAATAGTCATTT

TCCTTCCTTGCCAATGTCATCTTAAAAGAACCTCTCTCTAAACCCAGGTGCTTAAAT  
TGTCCAGTGAG

>non-DHS187

TGCCTGGTCAAACCATTTAACATATGACCATGTAAAAATGTAACAACCATTTCTTAGC  
TCACTCATGGCTGGCCAGATTTGACCCAGGGGCTACAGTTTGCCAATGTTTATTTGC  
TAAATTCTCTCCCTTTGTTGCATCATTTGAGAGAATGATATAACCATTTTCTCTAAAA  
AGTGAGGTGTCATTTTTTTTCCCATCTAATGTCAGGCTGTCATGACTCAGTTACTT

>non-DHS188

GCTGGGAACCAAGCAATAAATACTATTTATTTATTTAATAGTATGCTTAGTGGAAG  
TATTACCAATATTTCCCTATGCTTAAAAACATCCCCAAATGCATTTTGTGTTAGGCTC  
AGCATTTTCATCGTAAATTTACAACCTAAAAGGGTAAATTTCTATTACTCTATGTCAAA  
CCAACAACCTGGGTAAGTGCAGAATGTTACCCTGTGAACTATGACCAAATTTATTGCT  
GCAGTCATTAGTACATATTGATTCTGCTTATAACAACCCAAAGGG

>non-DHS189

TTCCAGCGAAACACAAAGGTAATTTTTTTTTCTGGTTAATATTTAGCAAGAATTCTG  
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TTTTTTACTGATAATGTGAAAGAATGATATAAAAACTTGATTTTCTCAACAACATT  
ACTTTCTTTGTAAATGTGGTTTCTACAAAGATGAAACTACTAAAACCTTACAGGTTT  
TATTTTTTTCTTGTTTTTTTTGGACTGA

>non-DHS190

AAGTCTGAATAGCAGCTGGGTAGGCACAGTGCTCTAAGATGTCCTTGAAACTACCAG  
AAAGAAAACCTGAGAATTTTGGGCATGAAACTTTACTGCTACAACCTACTGCTACTACT  
AGTAGATGACATTTGAATGTTTTCAATGTACCAAACATTGTTCTAGCTAGTTTTCATG  
CATTATTTCAATTAATCTAATAACTCTATGGGTAGGTATTATTTTCATTTACATTTT  
ACAAACAGGAAATCTAAGGCTTGG

>non-DHS191

AGTAAACAATGTGGCTTTGCTGTCTTTGTTTTGAAAAGAATTAAATTAGAAAGGTGA  
CAGTCTTCCTAGAGTTAGAAATTAACCTCGAGGTCAGAATAACTTAGCACTTATTAT  
TTCCCCACATGTAAGGTTGCATCTGAACAATGCACATGTCGTCTGGGTGTTTCA  
TTGAATATTCTAATTTGAGACAGCCAGAGCCTGTGAATAACCTGGTTACTACCCACT  
AGTGTGTGTGTTGTGTGTGTGTTT

>non-DHS192

GAGGGGAGATTTAGAGATGGGAAGAAAATATGACTCCCAGTGACTGTGGTGGGAGAG  
ATGACATGTCCTGGAGGAGTATGGAAATGCACAGATTTAATCTTGAGCAAATCACTGA  
AATTCTAAGGTGTTTTTGTTCCTCGTCTGTAGAATGAGAGCATTAGACCACTAGAT  
AAAGCCTAATGGCTCTTGTAGCCCGTTAGGAATTTATTGATAATCACTTCCTGACCA  
TCATGCTATCCACTCACAT

>non-DHS193

GTTTGGGGACTGCTCTTCTAAAGGGATAAAACAGTTGCCCTGAGTGGACTTTTTGAA  
GATGTAAAGCAAGGGCTGGGGAGATGTCCTGAGCACCGTGGGATAATGGCCTTTGGA  
TGAAACTGAGTTCTGTCTCGTTCAATTCAGCTGATGTTTAAAGGGCGCCCTCCCTGGGCA  
GGCAGGGTGCTGGTTCTTGAGGGTGTGGACACCCAGAGCCAGTCCCTGCGCTCTCAC  
AGTTTTCCCTCTGGC

>non-DHS194

GCTCTCACAGTTTTCCCTCTGGCTGCAAGCGCTGGGGTGTGGCCCTAGCTGGTCCGT  
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GGAAAGCTCACTCGTGGCTGTGCGATCTCTCCCTCCAAGCAGGTGAAGAAGGGGGC  
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GAGGTGACTCTGAGCAGCT

>non-DHS195

ACATCAATGAGGTGACTCTGAGCAGCTCCAGAAAGGAGGCAGTTTTCCCTGGTGAAAG  
GATCCTACAAGACCCTCAGGCTGGTAGTGCGCAGGTAGGTGGCAGACCCCCACCCTG  
TCCCTCCTACCACCTCACCCACCTCTCTCCCTACCCTACCCACCTCTGGGAAAAG  
AGCTCGGGGTTGGTAGCTTGGCTTTAAACCTCCATGTATGGATCCTGCCTTTTTTTC  
TTTTTCTTTTCTATCTTGTGGGATGTGG

>non-DHS196

TTCTTTCTATCTTGTGGGATGTGGGGAGGAAGTGGGGTGAAGACATTTTCAGACACT  
GCTGTCTTTTCAGAACACTCATTTCCAGCAGGTAAGTTTGTTCAGGGATAGACCTC  
ACTGGACTACCTAAATTTTGGGACCTGATGAAAAGTGACACTCATCCAGATGCGGT  
CAGAGCTCTAATAAGCTTTTTTGTCTGGTGGGACTAGAGAAAGAAATTGGCTTGGAGC  
TT

>non-DHS197

ACTTCAGGCTCCCCAGTAGTTGGGACTATAGGCACACACCACCACACCCAGCTAATT  
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ATTCTTAATATAGCATCTACTCAAATGTAGACATTCTCTGATTCTTAAAATAGGATT  
TTATGAGGTTAATTTTTCTTTGTATCTCATTTGCCTTTTACAGATGATCTAAAATCA  
TTTGGCAAAGGATGAGTGAAGTTATTC

>non-DHS198

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GACATAAGATCAAGCCAGCAGGAGTGAGAAACAGAGATCATATCAGGGTGATATCTG  
TGGGGCAAAGTAACAAGAAGATAAGGTGTAGGCGGTGGAGGGTAAACCGCAGGCT  
TCCATGAAGAAGAGTGGCCTGGGAAGT

>non-DHS199

TGTAGCCTGGTGTGTAAAGCTCATTTAGTGAAACCTCAGAGCTATTATGTGTCAACT  
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CTCTGACATGATTTTTCAGGCAGTTAGAGGGTCCATGCAATGCAATCAGTTGCAAATG  
ATGAGGTTAAAGTAATGGTACTGTACACACAGTACTATCCTTCCAAGTAGTAGGTTA  
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>non-DHS200

TATTGGAGAATTCATAGCCACACCAAATCTATGAAGAGTTTCAAGAGTGTGTGTGTT  
TGGCATTTTAAGAAGAAGGAAAATATAATCTGCTAAGAGATGCCAGAACTAAGGGTC  
TGATCAGCCCTTGAAGGACAAAGCAAGGGCTTTTGGAGAAGTCTACATCTCTGTTCT  
ACATATTTCTTCAGAGAAAGAGTGACTTTTTGTAAGCATTTTAACCATCCTACAGTTC  
AC

>non-DHS201

TCCACCACAAAACAGGTAAGTAGAATTAAAATATAAAAACAGCAAAAACACACACAA  
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 TTTTTAAAAAAGACTACTATTAGAATAACAGAGTGCCTTCAAACATACATAAAATAA  
 AAATGGGTATCTACTTATGTGATCTGAAGCACACACC

>non-DHS202

GAGGAAACCTGCCAGTTCAGGCTCCTCCGTGGGCTTTGTCAAGTCCTCCGAGACCC  
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 AAAGGACTTAATAATTCAGTATTATCTTCTGATATAATCAGGTATTTTTATGGGGCA  
 GTCTGTGCTGTTAACCATAAGG

>non-DHS203

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 TCTTAAGTATGTACAGCCTATTATATTCAGCTTTCCTAGGTATACTTGCCTCTTTTG  
 ACTCCAGCCCACCCACCTAGCTACACAGAGCTTACAGACAGGTCTTGGAGGATCTA  
 CCCTATCCCTATTCTGGCTTG

>non-DHS204

CTACCCTATCCCTATTCTGGCTTGGGCCAGAAAAGACACTAACAAAGAGTGAAGAG  
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 GGTGGTGATGGTGTAAATGGAAGTTAGTAAGATAAATCAATTACAATAATTGGATACT  
 TTAATCTTTTAAAACAATATCCTATAGATAGTTTTAAGCATTCAATAAAAAGGTTAAA  
 TTCCACCAGTTTAGCCTCAGTCTTTCCACA

>non-DHS205

GCCTGTCTTTACTGCAATCTCTACACATAAAATTGTGAAGATTTCTGGACACTTATC  
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 ATCCTGTCATCTCATAAGATGAGGAGGATGTATGTCACCTCAGGACCCTGTGATGAT  
 TGCCTTAACTGCACAAATTGTAGAGCATGTGTGTTTGAACAATGTGAAATTTGGGCA  
 C

>non-DHS206

TTAATACGTTGTTCAAGGCCACAGGTAAGAATTTTATGAAATTGTCATGGAGAAAAT  
 TGGGCTCAAACCTAGCTCTTTGATGCATTTGCTATGGGAACCTGGCCACATATTAGC  
 TTCTGTGAGACTCAGCTGTTTGTTTTCATTTTAAATGTAAAAGTATAGAAAACAAT  
 CTATAACTTGCAGCATTCAATTTAAAACCCGTATTATCTGCTGAGCACTATGCTA

>non-DHS207

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 TATGATGTGTGCAGGTGTTAAAATTTACACCATTCTATGTGTTTAGGAAGGGAGAG  
 CGAAGATCTGCCATCAGACTAGTCCATGGGGTCTCATTGTAGGAAATGAGGCTTACA  
 TTGTGCTTTGAAAGATGGACTGGAGTTAGTTGGATGA

>non-DHS208

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 GTGTGAGTCTCCACACAGAAACCAGTCATGGCCCTGCCTTTGCCCCCTTGAAATCA

CCCAAGAGGATGCTTCAAACCTCAGGCAAGCACAACCTGATACTCACTCTGCATGCGAC  
AGCAGGGGAGTGACCTTACGAGAACTAATGGGCCTCGCTTCCTGAGAATCACTGTC  
AGAGC

>non-DHS209

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CAGGGCAAGCAATAGGTAGATTTTTTAAAACAAGCCTGGCGAAAAAACAATGATAT  
ATATCTACCAAAGTTGGCTGGAATACCCGGCTGGTGTCCAGTCAGGAAACACAGGA  
AAAGGTTACA

>non-DHS210

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CGAGCGTGTTCCCTGGATTCAGAGCACCGCGCGGAGGGCTGAGCTCCTGGTCTTCGG  
TGGACCTGTGCTGACTCAGACAGCGGAGTTCCTCCTCTTCTCAGCAGACGGCTCC  
TCTTCCATCCACCACACCCAAAGACTCCGCCGACAGCCGAGGGGAAAGAACTTCCAC  
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>non-DHS211

TGAATACTGAATGCGAGAGAGGACGGTGGCATTGGCATTGTTCAGGAATGACAAAG  
GCAAGAAGCACATTGCCTTATTTGGTCAAAGGCTCAGGACTGGGAAGATATGGGGAA  
GTCAAGAGGTTTCCATCTGGAATGAGATTGGAAGTTGGTGCCTTAAGACCTGAGACT  
TTGAAAATTATTAGGTTGGTGAAACGTAATTGTGATTTTTGCCATTAAAAGTAAATT  
GCAGTTTTTGCATTAAAGAGTCACAGCAAAGAGTAAATGCC

>non-DHS212

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CAATAAAACCACCATATGTGTATGTTGACAGTTCTCACACACATTTTTTAAAGTGCC  
TTTTAGAATGACAATATCATTTAATAATTATCTTTTTTACAGAAAGTCTTTTAATAT  
CCCACAGGACAATGAAGAGACTGCAGGACCCAGTATGGGAACTGCAGGCTGACACGG  
CGGCCGGTAGGATCCTGCTTCGTGAATTTGCCCTCTGAATACTGA

>non-DHS213

AAAACCTGCAGACAATGGAGCCTACACATATGTGTGCAATAGCTTCAGAAATAATTT  
TGCTCTCTTGTGAGTGCTGAGTGACAGCTCTAATAAATTCCTACATTTTAAGCAGAC  
TTACATTTACATGCACTTGCTCTCCTCTCTCGAGCAGAGTGGAACATCTATTGTCA  
AATGCATAATATAGCATTAGAAATGCAAACCTGCTGTAGCCAATGGTAATGTGT

>non-DHS214

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TTGAATATTGATGGGGCTTAGGCATGCTGTTATAAAATGGCAATGAGAAACAGAGCA  
AGTAAGTGCCAGACACAGAGGAGCGATTATAGCAATGCATGGATCGTATGTAAAAAT  
TGAGTTCCCTTACCCTACTGTGGCTAA

>non-DHS215

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GGTGGTATGCAGCTCTCAGTCTGTTAGTATTCTATTGGCTTTCACACCATGTGAGTT  
TAGTGCAAAATTAAGAAAAAGAAAAACAAAAAGAGTAAAACAGAAATGACTGGTT  
CTTCATATCTTCCAGAAGAGGAATCTTTGAGATCCCATCACCCCTCTGTTAGATGAG

CCTGTGATT

>non-DHS216

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AAATTGTTACAATATTATACTTTACACAATTGAAATTCAAATCAGTTCACCTAACAA  
ACATTAATGTCAGGCCCTGCTAATGGGTCAGAGATTCAAATCAAACAGAATACCTC  
TTTTCAAGGAGGCTGCAACGCAGGGGAAACACTTATTTAAATACACTCTAGATGTC  
ACGGTGTAGCACATATGA

>non-DHS217

GGCTGTGGGCTTCTACAGAGTAGTTGCAGCCCTGTGCACAGGCAGGGGGGTGTCAC  
CGACTTGCATGTGGGCAGGTCTTTGCTGCGCATCAGGTGCTTTAAGCTTCGGAACAA  
CTGTGCAGGATTCTATTTTAGTATTCTGGAAGCATCATTGAGGAAGTAGTCCAGTGA  
AGTTAGCTCTAAAAAACTCTTTACTCTAACAATTAAGAAATATGCCAAAGGATC  
CATAAGGG

>non-DHS218

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AATGAAAACACTATGAATTCGGGGAACATGCAAATGTCTGAAATGGCAGAATGCAG  
GACTCCGGAAGAATAGGTAGGTAAGTCCTTTGCATTTTATCCCAAAGAGTTTGGACT  
CTGTGTTATATATAGTAAGGAACCAAGTCAGGGTTTTAGTAAGAAATTGGTGGGATC  
AGATTTGAGTTTGGGAGAT

>non-DHS219

TGGTGGGATCAGATTTGAGTTTGGGAGATTAATCTCTTGGTATGAATGAAATTATGA  
ATGGCTGAATGAAGGTACAAAACCCCGAGTATATTATCAAAGACTTTCTTGCAATTA  
TTGACTGTGTGCATAAGGCATGGTTTAGGATAAAATCTTCAGGACTTGGTTTGGATG  
GAAATAAAACCATTAATTTACCCTAGTATCATAGTCTGCTCAAAATGGATGGAA

>non-DHS220

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ATTAAGACCTGAAGAATGATTAGGAGACAATTAGATAAAAAGGGAAGAAGAGAAATA  
ATGGGCTAAGGCAGTGAGGCAGAGAAGAGCTTCTTTTATTCCAGAAATGAAAGAAGC  
CAGACAAGTTTGGGGATGAGTAAATAAGGAAGGGGATGGCAAGGGAGACACAGGGGG  
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>non-DHS221

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CATTGGGATTGTACAGGAAGAGAGGGCAGGAAGAACAACAGAAATAGTCTTGACCTT  
GTTGTCCACCTTAAGTATTGAGAATGGCACTCATCAAAATTCAGAGAGAATGAAAAG  
CAAACAGAAAGTGTTCCCTTGGTT

>non-DHS222

AAGCAAACAGAAAGTGTTCCCTTGGTTTTCAAGTTCTTATACAGTTTTTCTAAGAGTC  
TTTCAAGGGCTTGAGTGAAATCAAGTAGTTTCATTTTACTACAAGTTCTTGCAAGAC  
AATCTCCAAATTCAGTGGCCTGGTTTTACCCACTCTCTCCTCTCCAAGTTTGAATG  
CTCCTGTACAGACTTACTGCAATTTCACTTGAAGTCATTTCTGTCTCATCCAGTTTC  
ATCTCCAG

>non-DHS223

CTCCCTTTCTGAGCTGGGATTAGGAGTTGATAATGGTCTTGCAAGTGCAGTTCTGCA

GAGCGAAAGGGCCCGGTGCCTTGCAGCAGAGACACGTTCTGGGAGAGAGGGTTAGGA  
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 GGAGGGAAAGAGGAGAAGGAAATGCATCACAACAATGACTGGAATGCATCAGCAG

>non-DHS224

GCATGTGGAATCCAATGACTCCCAGCTAGTATAGTTTGGGAAATATTTCACTCAGG  
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 GCACACCTTTTATGTTAGCAAACCTGAAACCCATCCTCTGTGGACAATTCTATGCAAAA  
 ACAAAAGTGCAGTAGCACCAAATGAGCATGCTGGCCTCTCGGTGCAGGCTGGCTGGC  
 AGCCAAGTCCAGCCTGCTGAGAGAGAAAATTGAAGGA

>non-DHS225

CCTGCTGAGAGAGAAAATTGAAGGAAGAAATAAAGCAACTGCACAAGATGAAGTCTG  
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 TGGGCACTTTTAGAGCTGGACCCACTGCTGGCGGTCCTAGTTTCATGAAAGTTCAGG  
 TCCTTTTTGTGGGGAGAAATACACACACATGCAAGCTAACTCAGAGTGTGAGCACTG  
 AAGTGTGCTGTTAGGAACAGG

>non-DHS226

GTGAGCACTGAAGTGTGCTGTTAGGAACAGGTATTCGCCAGCAGCCACTGTTTTGTT  
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 GGGTCTGTGACTCCTTAAAATTAATGCAGTCTGTAGATGTGCTTCATTCTGAGAAGG  
 TACAGAAGAGAAGTGACATAAATGCAGAAAGATGTTCTGAATAAGAGTGCAAAAGAT  
 ATACTTTTCTGGCCACAGGCT

>non-DHS227

TCTCACTGCTTCATTGTTTGTACAGGGCTCCTTGCTAAAGAACACAGAAGTCCATT  
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 TGCTACAGTTCGTTTAATGGATGATTACTGAGTTCTTAATGTGTGCTGTATAACTTT  
 TTAGTATCTTTTTTCTTAACATATGCTTTTATAGTTGTCATTTTCTGATTATATCC  
 CATCTAGGGCTATGA

>non-DHS228

GAGCTGGAAGCCCTATAAACACTGAATCTGGGGTTAGTTTCTTACCTTTGTAATTTT  
 CTTTCTTTATGAAAGAATCCATCAGTAAATGAAATGTAAAGTTATCTGGAAAAATTC  
 CATATTGAACCTATAATGAAAATGAACATAACAGGAAAAAAGAGAAAATTTATCTAA  
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>non-DHS229

TGGTGTACTCCACAACACTACAGTGCAGGTGGAGAGGCAGATGGCCTCAATCAGGCTAC  
 CAAAGTTTCTCAGAAACCCCTCAGCAGCCAGTAGCCTTGTTAGTCAAGCCATCAT  
 CCAGGATAATGAGCTTACAGGAAAATCACTGGTTATGGGAGGCGAATCAGCCTCTGA  
 GACAAAAGAGGAAGTGACTTCCAGTAAAACAAGTTAAGACATCAAATAGGAGAAGG  
 ACTTCCG

>non-DHS230

CTGAAGAAATAACGGAGCCATACCCCTAAGTCCCCATCAATTCCTGGAGTTGCTCTT  
 GGAGCAGCTGGCTCCATTGTTTGGGCTTAGATGAGAGTCATGGGTATAGTTTTCTGA  
 CATAGTACAGCAGCCCCACAGCAATGGTATGCTAAATGAAGTCAGTCTCTTAAGAAT  
 CTAGTTTGCACATCTTCTCAACTCCCATTCAGTGACTGTTATGTTGCTAGCTTG  
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>non-DHS231

GCTAGGGTGGGAGATTTTACATTGCATGGAAATCAGGAAATGCTGCAAACCTAGGACT  
TCCCCACTCCACCCAGAGCTGGCTGTCAAACATTTACCAACATATTACTGTTCCAG  
AGTAAGCTAAGGTCAGAGGAAAAGGACAATACCCTGGAGGGTCAGGAACTATTCTA  
AGAAGAGACGTTACCTACAGAGTCTGCCTATCCCTACCAAATCCCATGAGGCAGATT  
CTTGTAATCA

>non-DHS232

ACCCCTAAGGGTAGAAGTGTGGATTTTCACTCCAGCATATATTCCTTAGGAAGAT  
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ATTATAGTGATTCAAATGGCTCTGCAAGACAGAATGTAGACAGCATACAATTAGAGG  
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TACAGGCTGATTACTTTTCAGCC

>non-DHS233

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CGAAAGGGCTGACTA

>non-DHS234

ATAGTTGCATGCTTGGGATTTGGGTTTTGTTGAGTTCAAATGTGAAGTTTATTTTCC  
ATTAAGTATTTATCAATTTACACATTTTACTTGCAGGAGAAATTTTACAATTCCATG  
TGATAAGAACTTTCCCTGGTCGAGGAAATGTTACTGTAACTGGAAAATTATTGGGC  
AAAATCTAGAACTCAATTTTGCTAACTTTAGCGGACAACCTTTCTTTCCTGAGGTAA

>non-DHS235

GCCGTTGTTTGGTTCTTGAAAAAAGAAATTTCTGTTCTGTAACCTCTATATTAA  
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ACTTAGCAGTAGAAGTAATTTCTACTACTTTTAAAAGAGTTTGTTTTATAATTCAC  
AGCCAAGATAGTGAAATACAATTTCTTAGGTTAAAACAATAATTGCTTTATAATGTAA  
TCTAAAGTTATCCATTTACTCTTTCCCATCCCT

>non-DHS236

GGGTTATCAGGAATGGAATTATGCCAGGGAGCTGTCATTCAAAAACCTCTTCTGATC  
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GCTTTGCAGGCATCACTGAAGCTACTTGATTTTTATGAAAAGTACTTTGATATCTAC  
TATCCACTCTCCAAACTGGGTATGTTCAAATTCACATTATTGTCTTCATTTTTGCT  
CATAAACTTGCTTTGATCTCTTCCCTCTTT

>non-DHS237

TTGCTTTGATCTCTTCCCTCTTTCTCTTTCTATGTGATTTAAATGAGCACTGAGGAA  
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AATAAAATATTTATGACATGCCCAACAGTGTGGATCATTCTCTATTCTTTTATCA  
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ACACTGGAG

>non-DHS238

CAGAAAGGGCACACACTGGAGGCTGGGACGGAAGCCAGGTAGAGGGTCCAGGAAAGA  
GATGGGGAGAAAAAGAAGGAACACAGTGACTGCTCTGTTCAAATAGGGTCCACAT

GTCCAAGATGCTGTGGCTCCCTGTGGCGGACATCAACGCTCTCATCCATTATGCTCC  
TCTTCTGTGGGAGGGAAACACACCTCCCATCGTGCTGCTCTTCTATGCCAGCAGCA  
TTGATTAGAGAATGGA

>non-DHS239

CAGCAGCATTGATTAGAGAATGGATTTTCCATTAAAAAATACATACACACACACACA  
CACACACACACACACACACGCATTGCATATTAGAATTAGAGGGATTTCTGGAGGAAT  
CACCATACTTATTTGTACAAGGTCAGCAATCTTTTATAAAAGTTGTCAAAGTTTA  
TGTAGAGAGAGAACTGAAAACCTATGCTTCCATCCGTTATCTGTGTTGGGCACTGAGG  
TTGGATGGTAAGACTGTG

>non-DHS240

TAGACTGCCACATGCTCCATTTACATAAAACCCATTAGTTTGCATTAAATACAAATT  
AGCTGCTGATATGAATTAATCACGTATAAATAGTTGAGAATAGCCGCAGAACCAGG  
CATTTTAATTAATAACTGTTAACAGATTTATTTGTAAGGTAATCAAGACTCTTA  
CTCATTTATTCTTTAGTACAATAGGCCAGGCAACACTGGCTGTCCAGAACAGGCCA  
TCCTTTCTAC

>non-DHS241

GACCAAATGATTGACAGAAACCAGTGAACATTTTCATAGTGATCAAAGCACCCCAA  
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CCTCACTGCTGGCCTCTCAGTGGTTGCTTTTAGGATACAGCTGTCTGCCCTCCGAAC  
TGGTGGCTGGAGTATCCTCCAGCGAACAGAAGGCTGTGGAATTTGTATCATGCTCT

>non-DHS242

ATTACCAGGATGGAGGGCACTTCCCAGCACGAGCCGACACCCTAGAGGGCACCGGCG  
AGCTCCCGAAAAAACTAGGGCGGTGGGGCGAGGAAGATCCGCGCCTCGGATTCCAGA  
GAAGGAAAGAAAGCTAGAGGGAGCCGGAGCGGAGCTGCACTTCACGCCGAAGTTTCC  
CCTTCGAATCGTCTGGAGTTGTAAGTGGTTTCTGATTGAACACAGCTGTCTAGCTGC  
T

>non-DHS243

CCTGGCATGATTTATTTGGTTCTCCGTTTGTCTTCTTTAATATGCAGGGCCACCAGC  
AGGTTAAACAGTTGTATATTTTCCATTTAAAATTTCCATAATCTTTTTTGTGTGTGT  
GTGAAAACCTAAAAATTGTGGTAACTTACCTGGAGACCTTGTGGAAACCATTTTGTCT  
TTGATTTTTCCAATCACTCACAGTAAATCAGCTACTGAATATATTTCCCCGTTAGG

>non-DHS244

GGTCTCATTTCTCTCTCCCTTGAATGAAAAGTTGACCTGCACAATTCAATCTCCATT  
GAGATGAATTAGAAATTAGAGGCGTTCTATGCAGGTTTAAGCAGCTCCGGGATTTGT  
CATTACATTTTTACAAATTTCCCTTAGTGGGAGCTAACAATAAAGATTAAGCAATA  
AACCTGCAAAGTACATATTGGAGCTAGATTTGAAAGGACACAACAAGCTCTTGCTCA  
CAAAGAAAAGTCCC

>non-DHS245

GTCCAGAGAGCTTGCTGGTCTTTGCAGCGTGCACACACAGCGCGGAGGAAGGCGCC  
ACATACTGAGCCCGGGACTCGGGATGAGCCCAAGGCCCTGAGAGCTGCTGAAATAGA  
GCCCCGCCCCCGCCCCGGGAGAACCATTGGGCAGACCCGACCCCTCCCCTGGGCA  
CGACCCCGCCACCGCCCCGTCTGCCCTGGTCTTCCGGAGGAGCCTGCGGCTGAATC  
CTGCCTGGAACAATGGGAGTGCTACA

>non-DHS246

AAGGCAATACACGATCAATATAGGCAGTGAAACAAAAGTATCATTGCAAGTTAAAA  
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 CTTCTGAGAGTGGCTGCTTTCATTCCAAGAAGCCCATGGGTTTGGAGGTGGGATAGG  
 TGCCTTTCTGGCTTCTCATTGCTGCTTCTAGATCAGTCTCCAAATATCCCCCTTCCC  
 CACATTGGAATGA

>non-DHS247

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 CCTTATCTGTAAAGTGGGGAAACCAAATTACCTCCCTCATCAGGTGGTCTTTAGAG  
 CACTCACTGATTTGCTGCATTTAGCAGAATGTCTGGGCTACAGTGAGTGTGTTGACAA  
 ATG

>non-DHS248

AGAATGTCTGGGCTACAGTGAGTGTTTGACAAATGTCTGAGATCATTTTCATCATTC  
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 TTGTTCAAATCTTCCACACTGTTTTTTCATAACCCCTCACACTCTATGGGTGTAATAA  
 ACATTTGTCCAATGGAATTCTTATACTGTTATACTCCACCTTAATATTTAAGTAGCC  
 TCAAGTCTTTTATGGAGCA

>non-DHS249

CCTCAAGTCTTTTATGGAGCAAATGTTTTGGAAACTCAAATAATGAAAAAGTGTAT  
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 AAAAGTTACAAGGCAATATATCCATTTATTTGAATAGCTCAACCTAAATAAAATTTG  
 GAAAAGTATGTATCCATCAGTGCTATTGAGGAATAGTGGTATGAGTAATAAATGAGG  
 AATAAATCAGTCTGGGGTATG

>non-DHS250

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 AAAACTGCAAGTATGCATAATTGCACTGTGTAATCCAGCAAACCTTTGCCCTTCCG  
 AGGTGCTCTGCTGCTAATCCTGCCACTGTTGCAGATGTTTCCCTTCATCTCAAAGCT  
 TCTCCTGTGAGTTAAAGTGAGCCACAGTGG

>non-DHS251

CAGAGGCTAAATAGCTTGTCAAAGGTTACATAGCTAACAAGGTAGGTCTTATTACTC  
 CCATTTTATAAGAAAACCTGGAACCTATGAAAATTGCCTGTAAAAGCAAGTAACTGGG  
 GCAGGCTTTGAACCAGCATCTGTTGGACTCTCAAGTCCATATGCTTTTATTTCTGTT  
 ACTCTGCCACCTTATGTGGATTATCAATAGCAAATGGTTAAGGTTGGCTTCCCTCAT  
 TCTCACCTTCCCTT

>non-DHS252

GTTAAGGTTGGCTTCCCTCATTCTCACCTTCCCTTTGCCATAAGCCAGAGTGTACTGA  
 GAATAGTCTCGTTTGAACATTTGCCTCTGAGGAGAATATAAACAGGAAGGCAAGTCT  
 GATGCAAACTCCATATTCTGAAATGCATCCCTTAAAACAATGCACCAAGGATCCTC  
 TCTCCCAGGGTGTCTGTCGCACTCCATCTAGCATAACATATCTGAGAGTTTCTAAGGC  
 TTGCCTTTCAGATACTTGGTGGTTCCCT

>non-DHS253

TAAGGCTTGCCTTTTCAGATACTTGGTGGTTCCCTAATAAGGTGCCCTAATCAGTTTCT

TAATCAAGGCAACACTTCAAAAGATTTTCAAATGAATGCTACAGACAGGTTTCCTAT  
 TTCCCTCTGTCTCAGAAGGCCCTCAAATCCCCTCCACTGAAAGAAACAAAGCCGCT  
 TCAAGCCTCCCAAACATCTTGAAAATACTCACATTTTCAAAGGACTGCACTCATA  
 GGAAG

>non-DHS254

GAAAACCCTAGGCCATGTAAATTGGTTATAACATGTTTGGAAATGTTAACCAACGTATT  
 TGTCAGTTGTGGTTTTTTATTTCGCTCTTAAACTTTGTGCATGCTTTAACAATTTATTA  
 CTTTTAAATCTAGAGTGAATTCTAAAGACTGCCGCTAAAGATCTGAGTTTTAAAAAT  
 GTTGTGCTGGTGGATTTCTTGTTCCTGTTACATAACTAAAAGTGAGGCCATTTGTG  
 GTT

>non-DHS255

GCTCACAATTGCCAGACTAATGACAAGAGATGGGTTTCTTGTATATACTTGGCATGC  
 AAATAATTGAGAAAACAAAACCTGAATTACAATATTAATACAGGACTCTAAAAGAGAA  
 GCAATGAATGTACACCATGCAACACTAAGCAACCCTTCAATGACAAATATGTTGGC  
 TATGTCAATGCACAAAGATTGTAAATAAAACACAGCAATTGGATTAGGCAGAGATCA  
 CACCAGAAACAGCTATGCAAGT

>non-DHS256

AGATCACACCAGAAACAGCTATGCAAGTCTCGCAACAAAAATCCAAAAGACTGTGGA  
 GGGCAGTAAGAGTTGTCCTGTTTGGCATCCCATAAGTTTTGTTTCTGTAAACTTGCT  
 TAGGTTCCATAACAAAAATGAATGGTCCAGAAAATAAGTGCAATAGAAATGTGGAGGA  
 TGGAAATGGTCATGGAGGAATGAGACCACAGGGAACATCTCAAACAGGGAGAATAGCA  
 TATGCAAGCATTGAGAGGTAAAGACGT

>non-DHS257

GCAAGCATTGAGAGGTAAAGACGTATAGACTATATCAAGACATAGTGAGTAAACCAG  
 CTTAGTTTGGAAATACAGCTTTAGATCCTGATGTGAAGGCATATAGGCCAATCTAAA  
 CTGTCTGGATTCAATTTTATAGGTTAAGGAGAGTTTCTGAGGGTTTTGGAGAGCAGT  
 TCTCATTAATCTTCTGTGAGAATTAATGAGTTAAAAGTAAAAGTAAAAGTTCTTAG  
 AACAGAGATAAGTGTTTATTATTACTTTTACCTTTGCAGTATGTCGC

>non-DHS258

TTACTTTCACCTTTGCAGTATGTCGCCCAAATAAGCCATTAGTTTCTTGAGAGTAGG  
 GATTACATCTTCCAGAGAAGAAAGGAAGTACTGGGGATCTGGTAACCCAGACTCATA  
 GGGTCAGAGAAGACTTCCCAGTATAAACCAGAGAAGGCTTCCCAGTATAAATAATAA  
 ACCTTGTTTATTATTACTTTTACCTCTGTGTATTGTCTCCCAAATAAGCCATTAGTT  
 TCTTGAGAGTAGGGATTACACCTTCCAGA

>non-DHS259

ACATTTACATGACATTGGCACCTGGTGAGGTATTTCTTACCAGTTGGTCCCTAGATA  
 TTGACTTTTATCTCTCCAGGAATTTTTGCAGTGTAATAAAACTCCTATGGTCACTGT  
 ATCATAGAGGGCCTGGTTCTCCATTACCCAGCTCCCTGTTATCTGTTTCATGTGTTA  
 TCATACTCTTCTGAGTTATATGATTCACCCCATCAAGCTATCAATTGTAATGTCTCT  
 TAACTCAAAGTCCCTTGTTT

>non-DHS260

TCTTAACTCAAAGTCCCTTGTTCTGAAATAAAAACCCTTCTTGTTCTTGAGCCCTCC  
 CAGCACTTGGCTATCTTGGGGACTATGGATTTTCAGCTGCTTTTTTCTGATCTTCATTG

CAACATGACAGACTCCTGTAAGACTGCTATAAAGTCCAAATACTTGGATATCTTCCT  
CGATACTGCCACTCTGTTTTACCCATGATATGCTGACTAATGCTTTAGATGCCTCC  
AACAGCCAAGGAATTTGAACTAAACCAGG

>non-DHS261

GTGTTTCCCATTGATAGCTGGAGACAGCCCAGTAGCTGTGAGTCGGTCTGACAAAGC  
CATATTGAAGTACGGAGTACGGTTTTCAAAGCAGTCAGAAAAAGAACGGGAATGCTGT  
TCAGGAAATTCTTCAGGCATGGGCAGGGACTTGGCTGCAGTTCTGCAGTTGGAAAAT  
CTGACTGGGGCAGCTTCTGAGCGCAGGCTGGGCCTGCACACACTCAGCGGGCCGAGT  
GGCCACCTCCTTCAGAGCTGCTCAG

>non-DHS262

AAAACGCTGAGGGTCAGGAACAGGTGTGGGAGGGGTTTCGTTCTGATCTTATCCCAT  
TTCTCAGTTCTCAGAATGTTAGTGCTGAAAGGGACTGGTGTGAGAAGGCATCTGGT  
CCAACCCCTCATGTTACATGAGACAACCTGAGGCCCAGAGTGGGGGCTTTGTTGCCT  
AAGGTCACACAGCAAATCAGCAGCAGTGCCTGGCCTTGAACCCCGGTCTTTTGACTC  
CCAGTCCAGTG

>non-DHS263

GGTCTTTTGACTCCCAGTCCAGTGCTCCACCCATGGCATCTGTGGCCCTCTGGGAAA  
GCAGGGAGTGA CTCCAGGGTGACACGTAATGAGGTTCTCCTCTGATATAACGCCCT  
TGGCCAAGCAGAGCAGGGAGCTACCTGGTGTGGCCAGGTCCACTGGCCCAGGGATGC  
CACGGGGCCCGGTTGGCCATGAAGGTTTTACAGTTCACATTTATTTCTCAAACC  
TTAAACTGGTGCTTCCTTAGGA

>non-DHS264

GAGCATCTACTATGTGGGAAAGACCCTCTTTTTGTTCCAGTCATCGGCAGCTGGGGG  
CTCTAGGTCCATCCCTGCCCTCCCCGAAGCAGGAGTAACCTTGTAGACTTCCTGT  
TAGGGCCCTGGGGTCTCTGGGTGAATTTGATGCAGACTCAGCCATTAGCCTGGCTGG  
GCCACAAAATCAGGAAGCTTAGACCAGTGTGTGGAACCTTGATTCCTGTCCCAGTT  
TTGTCATT

>non-DHS265

AAGACTTTTGATGCCCTGTTTCTGGAAAGAGACTAGAAGGTATAGTCTCCTACCTGG  
GATGTCAGAGTGAGTCTCACCAAAGTCAGACCTCAAGTCCAGTTTGAGCCGGACTTA  
TCAAGGCAAACAGGGATTTAATCAATGCAAGCTTATGACCTGCACTTACTAGGAATT  
CCTCGGTCATGGGGAATAATTGCAATCCCCAATCCCCATCACGAATAGGGTTCAAGA  
GTTTACCAGCG

>non-DHS266

TTCAATCATCTTACAGGAGTGGATGACATACCTTAAAAGATTAAGCTTCCCCACCTG  
GGATTTGTCCAGAAATTCAGTGTATTACAGCTTCTCAGAGCCTTCTTCGTTCTCCTA  
TATTCTTGTGTTATCAATAGTAGCTTCTTTCTTATTTTATGTTTAAGTATGAGACA  
CAGGCAGCTATGCTGATGGAGTCAGTTTGTACTGTCACCTCATCTTTCACTACAACCTG  
CAAGGTTCACTTCCTTT

>non-DHS267

GTCTGTCTATTTTGTGGCTTCCAAAATTCTAACTGCAAAAATAAATGACCATCTTATC  
ATGTTTTCCCATGGCTATCAGGAGGATATAGCAATTTTATAGATTACTACATGGTCA  
AGAATCTACGCATCGGATGTATTCTTTCTTCTTTACTTGATGCATTCAAAAGC  
AACCCTGGATTTTTTTCAATGTAAAAAAGAAAAATAGATACCCATGCCAAAATTCA

TGGGTGTAAACAGCCAAC

>non-DHS268

CCTCTCTCCCTCGACATCCTCCCCCATGTGGGAGGGGAAACTTTTCTCCTACATA  
 CTTTCGAGTCCTTCTCGGGCCGGGAAGCGCGGAGATGACGGCGCCCGCCCTCCCGCC  
 GCCGCCCTAAGGTATCCGGGGGTGCCTGCCCGGGGTGCTCGCGCGGGGGTGCCTGCT  
 CGGGGCTGCTCGGTGGGAGCATCCGCCGCGCCCTGCTCTGCGGACTTTGAACCT

>non-DHS269

TGGTGCCTAGAATCCTGAAATGTAACATTGCCACCATAACCAAAAAAAAAGCTGCTA  
 CCAAGAGTGAATAGCATTTAATTAGTAAACTTTATTTCTACTACTAAACACAATA  
 CAGATTACAAATCCATGCAAATCACTTGACACTTTTCTAACAATTTCTCCTCTGAAC  
 AAGTATGCTAATATTCTCCCATCTTCAAGATACTAATTTTAACCAAAGCTAAAAT  
 TTTGTAAACCTAATTCACAAAGTTCTAAGACCCTTAAACAGC

>non-DHS270

AGCTCTTCTACAGGAAGTGGCATTTTCCACTTGTGAAACGGTAGGTCATTCCCTGCC  
 TCATGCAGAACTCAGCCCTGTGGAGCCTCCACCACCTGGCCCAGGCCCTGCCACAT  
 GCAACCTCCCGGGGTGGCCCTCAATGACCTGCACGTCCCTTCACTCTAAGGAACCCT  
 GAGTTACAGTGGCCTTAAGGACATGTGTATTTAGAAGCCTTTGTGTACAACTAGCT  
 CTGTGCGCTCTCAGTTTAC

>non-DHS271

CTGGAATGGAATAGGGCTGTGTGGGCAGAAAAGAAATAGAACACGAGACAGGGAAAG  
 GCAGTGCAAGTGCAGAGGGGCATATGGGGTCCCATGGCTCCGAATGCTAACCTCTG  
 CCCTCTTTGCAGGTGGATGGGCTCGCGCTTCTGGCCGCTGTGCTCCGACACTGGCTG  
 GCACGTGGACCCACATGCCCCACATCTTTGTGGCCACCAACTTTCTGAGCCTTGTT  
 CAGCTACA

>non-DHS272

CAGGAAGGAGGTGATTGATGATACACTGTCTTTTATTCTCTTTTAAGACCATGGAGA  
 CCTGTGAGGATGGCAACGATCTTGTCTTCTTCTATCAGGTTTGCGAAGGTGTTGCGA  
 AGGCCAGCCATGCCTCCACACAGCTGCCAGGCTGGGCTTCCTGACAAGCTTGTGG  
 CTCGTGGCAAGGAGGTGATGAGATCCAAATGTGCAACCACCTCCACATCAGAGCTCC  
 CTTTCATTCCCTAGTC

>non-DHS273

CAGAGCTCCCTTTCATTCCCTAGTCCTACTGGGCCTGGGTCTAGGTCCACAGGATTTT  
 TGACCCTTATTTCCCTTCTCTTCCCCACTCCCTTACTCCTCCACCTTCTTGCTT  
 GTTCCTAGGTCTCAGACTTGATCCGCAGTGGAAAACCCATCAAGCCTGTCAAGGATT  
 TGCTAAAGAAGAACCAAATGGAAAAGTGCGTATATGGCCCCAGTGTCTTTACCCTCT  
 CTGCATCTTCTCC

>non-DHS274

TGTGAAACTGGATCTTCATAGTGGCCCCCACCTCCCTGCCCCGCACTGGGCGGCCA  
 TCACACCAGCCACACCTGTCCAGCCTGCTTCCCATCCTATTCTGGCCCTTGGACCCA  
 CATTCCTCTAGCCAAGTATGCTTTCTCCCCACCCCAACACAAAAATCGCAGTTTAT  
 TACCAAACCCAACATTTATTGAGAACAAAAGGAACCAGTTGGCATAGAGGCCCGACT  
 TCAATTCAT

>non-DHS275

CTTCTTGTGTCCAAGCCCTCAGACCCTTCCCCACCTCCCCCTCCTTTCCCTTTCCCG

AAGGATTGTTCCCTTTCTCTGCCTGGTCTCCAGGGCAACCCCCGCCGCCGGGTGTG  
AGAGGAAAGAGTATGTGTCACTGTGTATGCGTGACACTCCGGGTCTTTTTGAAGGA  
GGGGTTCGTGCGTCACCCCTTTCCACTGGTCTGCAGCACCAGTCCCCTCCCCCAA  
CTCCCTGGGTCTTATGGTC

>non-DHS276

TGCTTCAGGCTTCTATGCTAACTCTTGGAGGCCAGAGGCATTTGACTTTATGTATT  
TGAGTTTTCAGTATCTACTAAAATCATTCTTTGGGGAATTTTTTTAAAAGCTGCAAC  
TGTACAGAAAACCTACATCTTTACATCTGTACTTATGGTATTGGGGTGGGAAAAAAT  
GGACAATAAGGGTGAAAAGAAACAGTGCTATGAAACACAATGAAACCAAGTAAAGCA  
TCTGCCTT

>non-DHS277

TAAAGCATCTGCCTTTACTTGACCTTAATACAGAAGCAAAGCTTTTGGGAAACAGTA  
ACATTGCTTGCTGCCCCACAGCCATGGCTAGGACCCAGTCACTACAAGACATTAATA  
CAGTAGAAGGCAGCCTTCATCTGCCTGTCTCCCCTGGCTCCCATTAAGCTCCCTACC  
TACTGCAGGGAGCCAGAGAAAAGGAGAGGCACTACAATTACCACTTGTCACTCACCC  
T

>non-DHS278

GCCATAACATTTCTGTGTTGTCAAGGGGAAAGCTACCATGAGCACACCTTGCCTTT  
CTCTTGAGGCTGAAACAGTAGCAAGAAACCTCATGGTTTTGAAAGTGGAGTTGGCTGA  
ATATAGATTAAGGGAGGGAAGAGTCTGAGGTGCAATTTATACAAAAGGTTCTCTTT  
CCCCTATTCATAAATATTTAATAAGGTGGGGGTGCTAGTTGCTATCCTGTGCCCT  
AAGAAA

>non-DHS279

CCCTCCTAATTGCTGGAATACATATTAGAGAAATCTGTAAAGAAAATTTTTTTGCT  
CATCACCCTCTCACATGACTGTTTGCATTTACCCGCTGTACCCAGCCTACCCTTGT  
GCAAACAGATTTTTACATGGCTGCAACCACAGAGCAAACAGTTGATTACTCCTTAAT  
TCCCTTACACATCCCTACATTTGATTTTCTCCCTTCCATTCCACCGCCTGTTCTCTA  
AGGGCTGGATATCG

>non-DHS280

TCAAAGCTTGTGTTGTGGAGGTATCTGAGGCTCATGTCACACTCTGGGGGTAACTCGA  
GTTATGGTCTAAGTGGGGGAATCTTCTGGGTGTTCTGGGGCTGTCAGCCTTTGGGT  
TCTTTGAGGGTCTCATTGGGTGTCTTTGGGGTCTGACAGTTCTCCCCTGAACA  
TTCTAGCAGCCTTAGGTGGTCTTGAGCACTCTCTCCATGGGTCTTTATGGGGCACAA  
GTTCTTG

>non-DHS281

TGATGGAGCTGTTACTGCTTAGTTGTAGCATTTGATATCTGACTGCTATTCAGATTT  
AACACAAGCAGGATTTGGGGACCAAATTAATCTCAGCAGTCAGGCAGTCAGTCTTTCT  
AGATGGGGGAGGCGACAGAACAGTAGTTTAAGAAATCTGGATGGAGGTCTATATGTG  
CCTACAGTCAGCTTGTGAGCATCAGGGATATGTTTGGCAAAGTGCAGCGTGTACATG  
TATG

>non-DHS282

GGCCAAAGATTCTTCCAACTGCAGTTTGAAGGAATAAAAGAAATTACCTTCATTT  
TATAGCATTAATAAATGAAATGAGACTGCTACTGTATTTTTGAGAACAAAATAAATGTA  
CTGTCAAATACTTTTTATCTTATTTTAAAACATCAGAATTGTGCATATTTTTAGAA

AACACAAAATGTTGAGCATCTATGAACATCAGAAGAAAATGATGATATAGATTATGT  
TGAATGTTAGTTTTTAAACTATAGATGG

>non-DHS283

AACCCATCTTCCATTACTGATGCTACAAGCATGAAAAATAATTCGCTTTCTTAACTA  
CTTATTCTCTTACTCTACATGTTAAACTGAAAAAGGTTGTTCCCTCTTTTTTTGTAAT  
ATTTAGGCATTCTACCTGTTCCCTCTTTGACATTTGGATTTTTTAAAAGAAATGTAAAA  
TTTAGGTATTCTTCTAACATCAGATGAACTGCATTAGAATGTCTTACATAGTTTCAC  
AATCCCAATAATCTATTTTCAATTTGTGTACTTGAGATGAAGGTGGGT

>non-DHS284

CTTGAGGCTCCTAGAGAACGAACAAGGCCATGTTTGAATGTCAGGGAAACAGACGCA  
GAAGGTTTCAGAGGACCTTTGTCACTGAAATTCCTTTCTTCTGGAAAAGCAAACCT  
GCTAGTTTGTGACCATCAGGTACAAAATATATTTTTTTTCTATAAACCAACATTGT  
ATCTGCTGAGATAGTTTTAATTCATGTGATTTGTGACTAAACTATTTGATTTGTGGG  
TCTGATGG

>non-DHS285

CTGGTATAGGAGAAGGCTGGTTTTGGAGGCTGAGATCTGATCCAGGGAGAGCTGCAGC  
CCTTTGTATTCTGTGTCTCTGCAGGGTGGGAGGACAAAGCCCTTAATCAGCCACCAT  
AGGAAATGGATTCATGCATACTCTCATCAGGAATGATAGTAATCCGAATTTGAAAAG  
AAGGCAAGCAAAAGTTAGCCCTATAACTAGCTTCCACAAGCACCTGGATTATTCTAG  
CAA

>non-DHS286

ACATAACAAAAGACACGCTCCTGATCGGGTTTTAGAAAACCCACAGACCTGGGCACA  
AACCCCGTTCCACGACCTACTAAACATACGCTATCTGAGCACAGGACATAGTTAAG  
AAAATTTTTAAAAACAATTGAAAAAAGAATAAACATACAATGTCAGGAGAGTTTACTC  
ATCTCCGTCTCTGCATCTACCTCCTAGGTTTCACTACCTACCTTCCAGTTTAGCCTT  
AGGATACGTACGCAA

>non-DHS287

TGATCTCCTCCCACCTGAACTAATTTGCCTTAACCTTTAAACATAACTATGTCTTTA  
AAAAGAAGATCTGGTATTGTATGTGCCTCAAACACTGAAGATGATTAACAAATGTCA  
TGAAAATAACATTTCTAATCTTTTTAATTTAAACTGAAAAAATTCACAGTCTGAAAAGA  
ATGACATGACTTGTCTTTAGACAAGTCAATCCAGAAGCACATAACAGGAAGAAGTAC  
ATGTGAAATATGCTGACCAGGTGATT

>non-DHS288

GAAAGGACCCTCCTCCCTCTTAGGCGGCAGCTCGCCTTCATCGGGTGGATTTCTCTCC  
TCCTTGCCTGGCCTCGTTTCTCTTTTCGATCGCCTCCGCCGCGTGGTCCCGGCGCCAG  
CCTCGTCGTTCCCTTGCAGACGCTCTCCCTCTCCACCACCAGCTTCTGGCCACCCACT  
CGTAGCGGCACCGAGGGTTCAGGGCCAGCCCCAAGGAGGGCGCTGCTAGGAAGCTCG  
AGCCC

>non-DHS289

AGGCAGAGTAACCCTTTGGATATGGGAAATGAAAATAAATCAAACCTCAAACAAGTT  
TATTATTTGCTTGAAGCTCTGGTAAAAGATAAAGTGAAACCTGCAAACCTGTAAAATG  
AAGTTGCTGCTACACATTTCTCCAGTTTTGGATTTCAATCTTGGATGGCCTTTAACT  
TGGATAGAAGGATACAAGACAGCCATATATATATATATATACAGCTGTTGCTCTTTA



AGATATCCACTTC

>non-DHS290

AGATATCCACTTCACCCCTGTTGTGGGGTGGGAGGAGGGGGGAGGGATAGCATTAGGA  
GATATACCTAATGTAAATGTTCGAGTTAATGGGTGCAGCACACCAACATGGCACATGT  
ATACATATGTAACAAACCTGCACCTTGTGCGCATGTACCCTAGAACTTAAAGTACAA  
TAAAAAAAAAAATTAAGAAAAGAGATCCACTTCGCTCAGCACATGTGATTTGGCTT  
TGGTCTTTGGTGTAAATTTGGATGC

>non-DHS291

GGATGCCTAAAGAAGTACTTTCCTTGATGCTCACTCCAGCCTTTTTAGGACTAGAT  
TGGATACATTTACATGTTTGTCTGGCTGTTTTTTCTACAGTCACACATCCTACCCATA  
ATAATATTGCAATATTCTAAGTTGTCTTGGAGGATATCATCAAGTAGGTGTCAAGTA  
AACTTAATGGTAGACTGTAAATTTTAAAACAAGTTACAGGTCATTTGTGTAGTCTC  
TCTCTCT

>non-DHS292

ACAGGTCATTTGTGTAGTCTCTCTCTATATATATTAAGAAACAAAACCTTTTCC  
CTCTTGAATCTTTATTCCTATCTCAGCTTCATTTATTGCCTCGTTTGTTCATCTAAAT  
GGTCTTTGTTCTTTTCAGCTTTCAAACATGATTAATTGACATTGTGCAGCATAGCACA  
GGGAAAAGGCTGAATATTTTGTATGATGAGTAATCTAGTTAAACGCCCATCTTTCTT  
TTCAACTTTACCAACAAATGTGTCTTATGCAGATG

>non-DHS293

CTGAGGGAGCTACTAGGAGGTTTGCACGGCCTGCTCTCCTGCCCTCTTCTTGCTCTG  
TGGCTGAACTTCAATTCTCTTCGGGCTTAGACCCCACTGACTCGCTCCCGGGCAAAG  
CAAACGATTTGATCAGATGGCCACGTGCATTCTTCTTTTCTGAAACCAGCACCAT  
AGGGTAAAAGATTATTTCTACTTGGTTGCCTTCCAGATGTTTCACTTGGACAGCA  
AACTGATTTCAAACCCAC

>non-DHS294

AACTCTCCCTTGCTGTGTGCCAGGGACACGCTTCGTTGGTCTCCACGCACGTGCTT  
GCCATCTCTGCTCTCACAAATGCTCACGGGCTCCTGGACCTGTGTCTCCTGCCAGGA  
GCTGTGCTGGCCTGCCACCCCTCTCAGCTGCCACACCTCCGCGGCAGCTGCCTCC  
CGTGAGTAGGATCTGAAACACCAAAGCCACGGGCAAGGGCAGGATGGAGGGGCAGCG  
GTCCATGTCAACATACACCACAGATG

>non-DHS295

TCATGGCCTGCTCCTCTGTTCGGGGCCTGTCACCGGGAAACCCCTTTTTTTAGCAGCGA  
TGACGACACTGGAACCACGCTAGTCTCCGTCCCTCCCGCTCACATGCGCCACGCTC  
CCCCTCGAGGCAGGTTGAGCCCCGGCCTGGACCGCCCCACGCTGCC'TTCCGTCCACG  
CAGAGCGGGCTCGGCCCTCAGGGCTTTCCTTCGAGTCGTGTTGGAAAGAAGCAGAAG  
>non-DHS296

GATTCCCACTGAGGACCTGTGGCCACACAGCAGAGGCTCCACAGCCCAGACTCCAG  
GGTGGTTTCCATAAACCCCTTGGCCCACTTTTCTTCACTGCATGATTTTTAACAGGT  
TTTTTTTTTTTTTTTTTTTTTTTTTTGGCTTTATCTCTGCTTCGTACAGTACAGTCATCTC  
AAGTTCTTTCAATGAGGGAAACATCACCAACACACTCACAAGTATTGGGCCTGGTGA  
ACAAC

>non-DHS297

CACCAACACACTCACAAGTATTGGGCCTGGTGAACAACCCGAGGCCCTGAAGATCAG

GCTCTCCCCAGCCCTCCTGGAGCCAAACCACCCACGGCAGCCAAGTGACAGCACCCG  
 CAGAGCTGCCCCGAGCCTCTGGGAGGTCACGGGGAGGAAGGGAAGACGGAAACACCGT  
 GACGGCCACTTCTGCCTAAATCGTTAGGAAC TATTT CAGAGTCCCTGCAACCTGAAA  
 CGGGGATTCTCCACACACCTCCACAC

>non-DHS298

AACGGGGATTCTCCACACACCTCCACACGGCCAGCAGCGCAGTAATCGCTTTTAATT  
 AAATAAATCGGAAACACAAATCAGGCCAATGTGTTGAATCAAGGTGGCGTGC ACTGC  
 GTATTTATAGCTCTATCCACAGAGGACTCCTGACACATGCTACGGGGCTCCCGCAGCC  
 GCTTTATTAATGGAATAAATAACACCGTGCAAGACGGCAAACCTTCACCAGACGGG  
 TCTGGGGTTCTCCCAACTCAACACTGTTTTCTGCA

>non-DHS299

GAATGAAAACATGGTCCAGATGAGAACAGACTGGTGTCTGGTTTAGCTAACGGGTGG  
 GTGGAAGGGAACCACTCTCAGAGCGATGCTGCATCCTCCCGCTGGCGACTACCCCGA  
 GCCACCTGGCGGT CAGGTAGCAGATCCTCACCTGCCCGAGAGGCGCTTCCCCAG  
 GGGCATGCGCAGGGCCGGGCAAGCTTCCAGGGAAGGCTTGCGAGGCCCGAGGTCAGA  
 AGACATAGGAGTGTGA

>non-DHS300

CTGAGAATGTTGTCAGCTGATGGTTCACAGACGAAGGGAGGAGCTTTGCCAAGGTG  
 GCCACCAGTTCCAAC TTTACATTTTAAATCAATATGGGGAAGGAGAAATAATCTTAG  
 TGAGGGTTTCCATACACCATACTTAGTGAGCATTTCATACATGGATGGTCCAAG  
 CATTCTGGGGCGTAACTGACAAGATCAAGAACTTTCCTTGCTGAGCATACTCCT

>non-DHS301

CAGTGCACCAGAGAAAACAAAGACTCGGCCTCTAAGAAAATAAATATGTGGTTCCCTC  
 CCACTGCAAGAGCCCTCAGCCTAGGGATAAGGAGACAGAGGGACTCTGGTATCAAAA  
 TAGAGGGGAGTGGGTGGTAGGAAATGTTGACTGCATTTGCTGTGATGTGATTTTGCT  
 CAGCAAAAATTGATTCCATGCATGGCTTGCTATGAGCACTGTGGAATGCAAAATATG  
 AGACAATCCCTGCCTTAGAGAAG

>non-DHS302

GCACTGTGGAATGCAAAATATGAGACAATCCCTGCCTTAGAGAAGTTTGTATTCCAC  
 TTTTGAAGCCAGGCCAAAATAACATACAGAGTTAAGTAACGAGAGAAATCAGAATAT  
 GGTGAGTGGCAAGAGAGATGTTAGGATAAGTGCCACAAAAGTTCAAAGAAGCCAA  
 GGAAAAGTATCTTTTAAAATAAGGTGCCTGGCCAGGCACAGTGA CT CATGCCTGTAA  
 TGAAAACACTTTGGGAAGCTGAGAT

>non-DHS303

GTGTGCCTCAACTGATTCTGACTTCAGGAAAAGTAACACAGAGTGGCCTTGGCCTGT  
 TGTCTTCCCCTATTTTCTGTCCCAGCTCATCCGTGTCTCTGAAGAACAAATATGCTT  
 TTGGACCACGAATTC CAGTTTGGTCTACACAGGCTCGCAGCTCTCACCTGTCTGCTGC  
 TGTAGCCTGAATGCTCCCATGTGGGAATAGCACCCCACCACCTGCCAGTGTCTGCC  
 TCTGCTCCGTGTCTGGGGTGAGCACCCCTCACCTGAGACT

>non-DHS304

TGTTGGTACATGTGGGACTTTAGCTCATCTGAGGAGTCGAACAGCAGCTGTGAAAGT  
 CTTCTACTCACTCCCTGTGAGGCTGGCCTGGTTTGCTACACAAACACGGTGGCCCT  
 AGGACCATGGGGCTATTCCTGCAGACGCCCTCGGGAACCAGCTGCTCTGAACGTGGT  
 GGGGGTGTGGAGCAGCAGTTTCTCAAAGTCCACACACAGTTAAAGCTCTGAAAAC

AGCACGA

>non-DHS305

AGTGGTGTCTGCCTGCAATCTCAGCTACTCAGGAGGCTGAGGCAGGAGAATTGCTTG  
AATCTGGGAGGCAGAGGTTGCAGTGAGCTGAGATTGCACCACTGCACTCCAGCCTGG  
GCAACAGAGCAAGACTCTGTCTCAAATAAATAAATAAATAAATAAATAAATAAATA  
AATAAATAAATAGTAAAGTCGATGATTGTAGTTGTTAATCACATCCACAAGACACCT  
TCACAGAAACACCT

>non-DHS306

TTGTTAATCACATCCACAAGACACCTTCACAGAAACACCTAGATTAGTGTTTGATT  
CATAAGTGGGTACCACAGCCTAAGCAGGTTGACACATAAACTCACCATCACCCTAC  
CCTATTGCCAGGTTCCCTAAATTGGCATCCCAACTCTAGTCTATGCCTATTCTGAGC  
GCCTTCCATGCCATTTCCAGGCTCAGCTTACTGAAGGAAATCTCTGGCCAGGTCTCT  
CCTCTGCTTAACTTCCA

>non-DHS307

AGGTCTCTCCTCTGCTTAACTTCCACCACCCCGAGAAAAGACCAAGACTGACATCT  
GCTCCTTTTTAGACTGTGGTCCAAGCTCTCCCTACCCCTCTCCCTGGCTTTCTGTC  
AACATAAACATCTCATTTCATGCTCACTCTTGCTCCCTGCTGCTCTCCATCCCATCGC  
ACCCCATGCCTAGGCTTTTCTGTTACTGTGCCCTGTATTAGGCCATACTCGCTTT

>non-DHS308

CTGTATTAGGCCATACTCGCTTTGTTATAAAGAAATACCTGAGACCAGGTAATTTAT  
AAGAAGAGAGGTTTAAATTGGCTTCTGGTTCTGTAGGCGGTATAGGAAGCATGGCGGG  
ATTTGCTTTTGGGAAGGTCTGAGGGAGCTTTCAATAATGGCAGGAGGCAAAGGGGGA  
CACAGGCACTTCACATGGCTGGAGAAGGAGCAAGAGCGGGAAGAGGGGGGCGGAAGT  
GGTGCTACACACTTTCAAACCACCAGATTTT

>non-DHS309

TTAACCTGTGAACATCCAGCTGTCCCTGGGCTGTGATTTCAGTGTCTGTCTCCCGGT  
GACCTCAGCATGGGCTTTGAGGAAGGGGAGAGAGTAGTTTCTTCTGAGACTGGATAG  
TGACTCAGGGACCCGGGGCTGGGGCTCAAAGTGCCTTTGTTGGCCTGGGCTCAGG  
AATCCAGAGAACTGGTCAGGAGGAGGCCCCAGTGACAAAACCCCTCCCTCTGCCC  
CCGCCCTCTGCCAGAGCCATATAACT

>non-DHS310

CCTGAATGATGACTGCTGAATCACGGGAAGCCACGGGTCTGTCCCCACAGGCTGCAC  
AGGAGAAGGATGGTATCGTAATAGTGAAGGTGGAAGAGGAAGATGAGGAAGACCACA  
TGTGGGGGCAGGATTCACCCTACAGGACACGCCTCCTCCAGACCCAGAGATATTCC  
GCCAACGCTTCAGGCGCTTCTGTTACCAGAACACTTTTGGGCCCCGAGAGGCTCTCA  
GTCGGCTGAAGGAACCTTTGTCATCAGTGGCT

>non-DHS311

CTGAAGGAACCTTTGTCATCAGTGGCTGCGGCCAGAAATAAACACCAAGGAACAGATC  
CTGGAGCTTCTGGTGCTAGAGCAGTTTCTTTCCATCCTGCCAAGGAGCTCCAGGTC  
TGGCTGCAGGAATACCGCCCCGATAGTGGAGAGGAGGCCGTGACCCTTCTAGAAGAC  
TTGGAGCTTGATTTATCAGGACAACAGGTAAAAGAGGTGAAACCTATTATGTGTGA  
GCAGGGCACAGACGTTGAAACTGGAGCCAGGAGAAGTATT

>non-DHS312

AGGAGAAGTATTGGCAGGCTTTAGGTTATTAGGTGGTTACTCTGTCTTAAAAATGTT  
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 TCCATTTACAAAGTGATTTACCCACAAGCCCAACCTGTCTGTCTTCAGGTCCCAGG  
 TCAAGTTCATGGACCTGAGATGCTCGCAAGGGGGATGGTGCCTCTGGATCCAGTTCA  
 GGAGTCCTCGAGCTTTGACCTTCAT

>non-DHS313

AGTCCCACCTTCAAACATTCGTCTCGGAAACCCCGCCTCTTACAGTCACGAGGTAAGA  
 AGCAAGGTTTCATTTAGGGGAAGGGAAATGATTCAGGACGAGAGTCTTTGTGCTGCT  
 GAGTGCCTGTGATGAAGAAGCATGTTAGTCTGGGCAACGTAGCGAGACCCCATCTC  
 TACAAAAAATAGAAAAATTAGCCAGGTATAGTGGCGCACACCTGTGATTCCAGCTAC  
 GCAGGAG

>non-DHS314

AGACTCCCTCTCGGGGTAGGTGGGGGTGGGGAAAAAAAAAAAAAAAAAGAGTCAATGGGCG  
 CCAGCAACACACCAGGCCAGCTCCCTGCGTGACTCCATCCTCAGCAACTCGGGGTA  
 GTTAGTGTAATTAACCCCTTTCCACATTGGGAAGCTGGGCCAGGCATATGTCATG  
 TATCTCCCAAAGGCACTGCTGTTGTGACTAGTAAGAGGCATCGGGATCCGAGCTCAG  
 GTCTCCTGGGTTCTGATCACT

>non-DHS315

TGACTTTTCAGGAATCCCATGCAAAATTTCTCCCTCAAACATTTCTCTTTGTTTGTGT  
 CTTGGTAGCAACTCCAGAGTTTTTCAGGACTTGGACTCTGCTTTAGACTTGTGCTCAG  
 ACTGTCTCCACAAAAGTGGTCCGTTTTCTCATCCAATGAGCTCTGCCTGTTTGTCTG  
 TGTGACACTCCAGTGAAGGAAGCCAAGAGCCTATAATAGCGATCCTGGGGAAAATT

>non-DHS316

TGCTTGAGAGCATGATAACAATCTGAGGTTTTCCCATGCAACCCTGAGCTGTATGATTA  
 TCAAAAAGGTGAAGTGAGGAATAACAAGAGAAATAAATCGTCAATGCTGAAGTTAGAC  
 TCAGGAGATCTGTTTGTCTGATGAACTGACATCTTTGCTAGTAAGTTCAAAGGTAG  
 ACAGTGTTTATTTCTGTTTCACTTCCAGATATTGCCTGTGCTTTTCCAGTCACTCA  
 ACAAAGAAGG

>non-DHS317

CTTGCTGCAGAAATATGTAGTGGGCCGCGAAGTTTGAAGGAAGCCCGCAGTGCCTG  
 GTATATTCACCAACTCCTCCAAGTAACTGATCATTGCCAAGGTGCAATTAATAAGCG  
 TTCTTTGATGTTAATGATTGTGAGTGTTCTCAGGAAAGGACTAAAAGCTGACTTTCT  
 AAACAGGATGTTGTTTGGAAAATACCCCAAACAAACTCGATGTCCATTCCTAACGTGT  
 TATTAAGTGAACCGATCTGACTCGA

>non-DHS318

CTGTACTCATGCATTTTGGTTTAGCAGTATGCTTTTTTTCCCCATGAATTCAGCAAT  
 CTTAAAATATGCTATCGCACAAGATACTCATGGGGGATTTAACACCAAATTTTGTTT  
 TGGAACCTATAGTCACTCACTGTTCCAATCTGAAAAATACATAGATGTATCTCAAGT  
 GTATATATTGGTTACCAGCTGGTAGTTTCTCAAATATCTCCATTTCTTTCAGCTGCT  
 TCACACTCACTACCAAGCAA

>non-DHS319

ACAGTGTCAAGTTACGGGGTAGGATTATAACATTAGAAAGAACAGGTGTCCTTGATTG  
 TTAGGTTTGTGAGGGAAATAGAGAAACGGTGTGCAGAGATTTTGATAACAACGACTCC  
 ATGCAATCTGCACACTCCTTTTGGGGGGCTCCCTCTGATGTTAGTTGACAAGCTTCA

CAAGGATGCAAAGTAAGACAAATTAGTCCATGATATACAATTAGGGGGGACATTACT  
ATGAAGAAAGTCTTGCATTTTCCGAAT

>non-DHS320

GGAGATCTGTGAGCTTGGGAAGCGAGAGTGCGTGTGCGTGACGCGCGAGGGTCACC  
GGCGCTTCGCTGGGGACGAGGCGCCGGGGCTCGCGGTGGACGCCGCTTTCCGGAGCT  
AGGGGAGCCCATGGACAGTCCCTGGGGCTCTGGAGTGGTTTCAAGGCTTCTCCATTC  
CAGGGAAGCGCCAGGTCCTGCTGTTTCTGGTGCCATCCGGAGACAAACAGAGAT

>non-DHS321

TCTTTCAATTATGGAGAGGGTCTGTGATGTGTATTTTAATGAAAGCCAACTATCTTCT  
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TAGCTGGCAGAGTTCAGGACTTGATGGAAACATAACGAAGGGCTCAGAATGTACTCA  
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GCAAGCCTG

>non-DHS322

TAGCTTTTCTTCTCCACGGATCTTGTAAGAAAAAGTGAGGGTGTATGATATATGG  
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TGGATTTTTTTAAAGCTCTAAACTTTAAAAAAAATACTCAGGAGTCCCATAAACC  
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CTTTGCCCTTTA

>non-DHS323

ATATCTGTGGTTTGCAGACATTGCTAAGTGATTCCTATGTCAAATTTTAATATAGT  
CTCATAACAGCACTTTATCTGGCTGAAACTGACTGCCTTTTTCTTCAAATACATGTT  
TGCTTAGCTATATATTTTGCTACATAAATTAGATATTAATTTGCAAAGCACTTGAGA  
TCTAATTAATTATAGTAAATTTATTTCTGCTTTATCTCAACAACAGCTCCAAACAAT  
ACCCT

>non-DHS324

TGTGTGCTCAGTGCTACTGTGAGTCAGGGTTAATTAGCATTAGTCATAGACTTGGGA  
ATCCTCACAAGAAAAGGGTCATCTGGTGGGTCTGGGCTGTGCCCTGGCTGTGATGAG  
ACACCACTCATGCCCTGTGAGTGTGTATCATGCTTCATTAGTGGCTTGCCTAACT  
TTGCAGGTCGGCCCTGGGGTGGCCAGCCCTGAGTGCGGGTGCTGAGATCAGCCAAA  
GGATGACACCT

>non-DHS325

ATATCATCATGGCCATCTTCTGTGGACTGACTACGTGGACCCAACTCCTTCTTCTC  
AGTGGCTGCTTAACATTTTCAAGTACATGCAAATGCCATTATATTTTATTCTTAGTGGG  
TTCTCTTCCATTGTTTGTGGAGGGCCTGTCATGGACAAGGCTATGTTCTGGGGACC  
AGAATTTACATTCTATTAAGGGAGACAGGAAATATACACTAATTAAGTTGATAGGCA  
GGAGCATTGT

>non-DHS326

GCTTGGCATGCATAATAACAATAGCAGAAAGAGGAATCTTCTACTGAAAGGCACTGGA  
AGAGGGATTCTTGAGGACAAGATGGGCTGAACGTCAAGGATGCCATTGACTGTCAAT  
AAAATGGTTGTTTCTCCTCCACTTTCTTCTTCTAAACCATCCTCCCTCCCCTACTGTT  
GAAGATGTAAAATCAAATGGAAACATCTGATGGCTACTTGTACAAAACCTTTCA

>non-DHS327

GGACTCACACATTTCTTCTCTTAAACACATTTACCACTTACTTTCTGCATTTTTTTTT  
 AACCTATTTCTCTCTCTTCAAAGATGTGACTACAGGAATCTACAATGCCTAGACAT  
 AACAGAAGGCAAATAAACACTTGAGAAATCCATTAACATCACAACCTCATTCCTTTC  
 CCCACCGTCTGTACAGCATCTGACTGTCCACAGGGGTGCCTAATTATACAACCCCA  
 AGTCCTCCTTCACCCTAGAATCTC

>non-DHS328

AATTTGCAAGTTTGGTGTGGTGAGGCCTCAGTCTGCAACAAAGGGTGAGGGAGGCCT  
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 AGCTGGGCAGGGATCCGAAAACGACTTTATTGAAGATGGAGTTGGCAAGACCTAGCC  
 CCACTTCCCACCCCAAGAGCCGTTCTGTCTCCCTCACTCACACGCTTTCACAAGC  
 TCTGCACTTC

>non-DHS329

AGCAGGAGAAGGAGGAAGGTTAAGAATGGTGACAAGGCAAATTCGATTGGAGGAAAA  
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 TAAAAGCTAAGTAAAGAATGCAAATAGAATAAAAATATCTCTGGAAGTATGATGG  
 CAGGTTATCAGTAACCTTTAAGTTTTCAAATCTAAAGATTAGTGAGGGTAGAAATG  
 TTTACAGTCTCAGGA

>non-DHS330

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 TACCTCTGCCTCATGGCCTCCCTGTGGGAAGAGCAAGCCCAGGGACCCCTCCCCGCT  
 TCCCCCTCCCCTGCTTCTGGAGAGGCTGAAACT

>non-DHS331

GCTATCCCCACTACCTGAGTGACTTCCGAGATGCACTTGACCCTCAGTGCCTGGCCG  
 CAGTCATCTTCATCTACTTTGCCGCCCTGTCTCCTGCCATCACCTTTGGGGGGCTGC  
 TGGGTGAGGAGAGCCTTCAGGTAGGGGGCGCGGGGACTGCCAGGGCCTGGCCACC  
 AGCTCCTGAGCTGGTTCCTACACCCCTAGGAGAGAAGACGCAGGACCTGATAGG

>non-DHS332

AGTTCTGTAGCAGCAACCACCTGGAGTACCTGGTGGGCCGTGTGTGGATCGGCTTCT  
 GGCTGGTGTTCCTGGCCCTGCTCATGGTGGCCCTGGAGGGGAGCTTCTTGGTCCGCT  
 TCGTCTCCCCTTCACCCAGGAGATCTTCGCCTTCTTGATCTCACTCATCTTCATCT  
 ATGAGACCTTCTACAAGCTGGTGAAGGTGGGCAGGCCCTGCCGAGAGCTGGGCCAG  
 GAGGGCCGAGGTCTCAGGGCTGGAGGGAGTCTCTTGGTCC

>non-DHS333

ACGTATAACCAGGGCTGCAGATTACTCTTTTAATTAATTAATTAATTTGAGACATTCT  
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 CCTCCTGGGTTCAAGCGATTTTCTGCCTCAGCCTCCCAAGTAGCTGGGATTATAGG  
 TGTGCACCGCTATACTGGCTAATTTTGTAAATTTAGTAGAGACGGGTTTCACCGT  
 ATTGGTGAGGCTTGTCTTGAAC

>non-DHS334

CTTTCTTTCCCTTCTCTGTTCCACATCCACACCTTACTCTGATTGGGAGTCATAGCT  
 CTGTTCTCTCTGCCCCAGCTGTCCCGGAATCCCTTTCCCTGCCATGGGCATGCTAGA  
 AACATGCTGCAGTGCCCTGGGCCACCTCCGGCTCCCGCCTCCTGGCCTCCTGCACTC

TAAACATACATACCTGAATGTGAGAGTTTGTCCGGGGTGACCCTCTACCTCCTTCCA  
GAC

>non-DHS335

CTCCTTCTGGCCCAACAATAAGTGCCATTTGGAATCTTCTCGGCCTTCTCTGTGCCT  
TCCGCGCGTCTGGGCTCCCCGGTACCGTAGACCCGGCCCCGAGCTCCGCCCCCTCGC  
CCTGGGCTTCCCCGCCCCCTCGCCCCAGTCTCCTGGGCTCTTCGGGGCGGCGGAAG  
AGCCGAGAACCTTCGCGAAGGTGGGGCGGGCGCCCCGAGGTTGGGCCCGCGGTATG  
GGCAGTGGAAACT

>non-DHS336

ATTCTCAAAACAACACTGCTCACGCTGATCTGTTGCTGAAAAACGTTTAATTACTGA  
CAGAATAAAGTCTAAACACCTTTGATATTCTTCTATGACCTGGCTTCTAGTCGCTTA  
TGTACCAGTCTCTGATAAACTTTCTCCATTTTATCCCATCTTTTCTGCTTATTTTT  
CTCAAACCTGTGGCACACATTTTGCCCTTTATACTTATTCACCCACCATTCCCAT

>non-DHS337

CCTGCCTCCTATTCTTCACTCCTCAGGCAAAAAGGTTGCTCAAGGAGACTCCAGGAT  
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CCCATCAGTCTCACAGAGCCTCTGGAAGCACAGGAAGGCAGCTGTGGGATCCTGG  
CTGAACAGAGTCCAGGTGAAGCAGGCTTGAGAATGGATTGATGGGGAGGTGGGGATG  
TCACAGGTCT

>non-DHS338

GAAATTGAACCTGGGGTTTTGACTTGCCACTGCCATAACTTGTTTGTAAAAGAGCTG  
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ATGGTTAATAAATTGGTTTTGCTGTTTTTAAGTGAAGTGACAGAAGCAGACTCTGCAC  
ACACACAACCAGCGCTGCCGCTCCCGGGAGGCAGAGGTAAAAAGCGCATGGCACTGC  
TGTGTAGAAAGGAGGATAGGCA

>non-DHS339

CCAGAGTCCCTGAATCAATGATAATTAACATTTTTTAAAAATTTATTATTTTTTAAAA  
ATAAATTTAATCGGGAAGCTCCGAGCCAGAAGAGTAGCGTCTGAGACTCCCCATAAT  
TAACATTCTTCACTCCTTAATTTTAATTTACCTCACACCAAACCTAGCTGCTAACCT  
CCTCTCCTCATCTGCCACATTTCCCAACAAACCTTGAGCTGTCTTCTTTGCTCAGTCA  
GTTCCCTCAGACTCAA

>non-DHS340

GTAAGGAGCACCTTCCCTCATACCACATATCCTACATTGTGTAAACGTGTAATACG  
GTTAATTGAGGAAGGTTACATACAGAGAAGTAGGAAAATGTAAAACCTGTTTCTAAAA  
GGCCTGGACTCCAAGTTAGGAAGATAACATCTCTTTTGTCTATATCAGAGAGGAAAA  
TTCTATTTTATTATTTTTTTCTGTCAGGAGTCTTCTGCAGACTTGCTGGAGACTATT  
GAA

>non-DHS341

GTAGTTGAACAAAAGGGCCAGAAGAGAGCATTAATGTTGTGACATTTTGCTGTTTTT  
TCAAGCAGAGATCCAGAAAGTGAGACAGATAATGACTCCCAGGAAATATTTAAGTTG  
GCAAAAGATGTGCTGATTCAAGGATTGATCGATGAGAACCCTGGACTTACGTACGTG  
AATAACTGGGCTGGGACAATTAATGTTAAGGGTATTGCTTTCAAAGGTAGCAT

>non-DHS342

CACTGTCTTTAGCAGGAATTCAAGGCTTTTTCAAGATTGAGCGCCAACCTGTGACTTT

CCCCTCCCTCATAAGTCTGAGCACCTCTAACCAAATTCATTATCTCTGGAAACTCT  
 CCGATTTTTTTTCATAGTGTCTAACAGTCAAAGTGTTCACCCATTTAAGATCAA  
 CAGTACTTTTTTTCCATTAAGGACTTAGTGACTGCTTGTGTCAGATGTAACCTTCAT  
 TCCTCTGGCTCCTTTAGT

>non-DHS343

TTTTGTGGACAAACAGTACTGACCTAGATGCAAAGAGAAAAGACAGTGTAGAAAGT  
 GGGGAGACAAATGTATGTGAAGTGCAGAGATATGAAAATGCAGGACTCTTGCACAGA  
 ACAGTAAGGAGCTGAGCGGGACAGAAGCACTGGTTGCCTGCAGAACTCTGCAAAGAT  
 GGACTTGGGCAGGAACTGAATCACACATTTTCCTTTGTGCTCAACAAGGTGATTTGAA  
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>non-DHS344

GAATCACACATTTTCCTTTGTGCTCAACAAGGTGATTTGAACTTTACCTTAAAGATAT  
 AAGGACACATGACAAGATTCAAAGAAATGAAATTTCTAAGTGAATTTTTATTTTAC  
 AACATTGCCAGCAGCTATGCAAACAAAGGACTGGAAGTTAGCTAGAGAGAGACTCCA  
 GCTAGAGCAATGTTTTGCAGTGGTTTTTCAGCTTAGGATGATTTTGTTTTGTCCCCCT  
 CCATCCTCCCAGGGAATATCTGGCAATGTCTGGAG

>non-DHS345

CAACTGTGCAGGGAGAAACAGAGGGATCAGGAATTC AACACAGCAACTCCACGCCCT  
 TCCTCCTGTTCCACACCCCGCAGGACCTCCCATCACAGAACCCGGCCTGAAGTCCGA  
 GGAGGGAGCAGGGTGGGAAGTGTGGGGATGAGCATGGAGGGACCAGGGACAATAGCC  
 ATCCAGGTCTCCAAGACAGAAAACCCAAAGTGTGTGGGTAAAATATCCTTTGAGG

>non-DHS346

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 AATCCTTCTATTCTATGACGGACAGAGGGACACAGTGGATTAGAGCACTAGAGACTG  
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>non-DHS347

CCTGTGTACAAATATGCAAGGTCTGATTTAGACAGCAGAGACGCCACAGCTAGGAA  
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 GTGAAATGAGGTACAGTCATCCTTCATTTGGAAACAGCAGCAACTGCAAACCAAACA  
 ATCCTTTTCTAACTCTTGAAAACCTGTTTTCAAAGTTTTGAGACAGACTACAACAAA  
 CCCTGTATGTTCCAGACAGGAAGTGG

>non-DHS348

TGAAAGCCTTAGTGAACCTTATCTGGGGAGAAATATATTTGCTTTTCACAGAAAGCAA  
 AATCTAGTTCAAGGACGGTTTCTTTAGATGAAAATTATGTTTAGGCTTACATAATCC  
 TAACGATGACCACTTTTCTTTTGACCTCTTTTCTAAGGTGTTATGTATTAAGCATGT  
 GAGTAAGCATTTTGGTGAGCTGCAGTTACTCTTGAAGGGGTCACCACCACCATCACT  
 ATTGGAAGAAAGGTGA

>non-DHS349

GACTCTTCCATTACCTGGATTTGTGAATCGTATTTCAAATTTGAATGTGTTTTGCT  
 TTTCCCCTCACTGTTGTATCTTTTGGTGTGGGATGTTTTGCCATGGAAAGAAGGAGA  
 AAGAAGCAGGATGCAGTGGGCATACACTTAATTGGGGCTGAAGGACGTGAGGGCCCC



TGTCCAGCCCACCATTCTGTGCCCTGGACAGCCCCTTAATGTGTTAGTGCCTTGGGT  
TGCATGTCTGAGTTGAATTCCATG

>non-DHS350

TAATGTGTTAGTGCCTTGGGTTGCATGTCTGAGTTGAATTCCATGAACTGAGTTTCG  
TTTCCTGAGAAAAGAAAAGTTTGAGAGAGAATCAAATTAAGTGTAAATTCACGAA  
ATCTTTTGAACAAAAGGGTAGTGGCCACTTGCTTTCTAAATATATCATAAAGGGGTC  
AAGAGGAAGTAGCTAGCAATAAGATAATGTATGTAATGACAAATGCCTTGGAAAGTGG  
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>non-DHS351

GTAATGACAAATGCCTTGGAAAGTGGAAAGTTAGTACATATCAGGACAGACTATGTATG  
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GTTACTTCTATCCTTTTTTCTTTGGCTATGGGAATTTTATCAAGTTTGGATGGTGCA  
GGCTGTGTACATTTCCCAGGCATGGGTTTTGGAACACAGGGGATCTGACTGTGGAAT  
CAAGTTCCATC

>non-DHS352

GCAAGGACTGATAAGACTGCTGATGGCATGTCAGGTGAGTGAGACAAGTAGCATCTT  
CTTTACGCTCCTTTCCTTTTTCCCCCTGTATAACCAAGCTCAGATTTTTAACACACATCC  
TCTTATTCTACATTCAGAGTTCCCAGAATATATTGTCCGTTGCCACATGATAATATG  
GCATGTAATAATTGGCAAGACATGACAATCATATTGTAGGGACATGGGACTGAGATC  
CACTGCTTTGATCTACCATTCT

>non-DHS353

AGTGGTGAGTGTTGGATGGCATAGGGGTGGGATGGTGTCTGGGGGCTGCTGACCTCAG  
CAGCGTCCCTGCTGGGGTCATGCAGGCGCAGCAGCAGCGGCACGAGACTCTGCAGCA  
CCAGCTTCCGCAGGGGGCCGCGGAGCCCCAGCCGGAGCCCGCCCCGGCCCCGGCGCA  
CCAGAGTCCCAAGGAGCCCGACGGCCGAGGCGCGGATTGAGTCCCGTGTCTGCGT

>non-DHS354

GGGCTAAATGGTTCTACCCCTTACTAGGTTGCCCAATTAGTGGCACTAGTTGGCAG  
AGCTGTTTCATGAGCTGCCAGTTATCATTTTTGGAGTCAGTTTGAAACCAGCCTCTTAA  
CACACTGCTGTTAACTCATAAAAGAGAAGAGTGTTCCATTTTCAGTCTCAATAAACAC  
TTCCCTCATTTCTTTCCCCCTGCCTTTTTCTTCTTGTATCTGTTGTTTTATCTTACT  
TGGATGGGTGTGG

>non-DHS355

CCAGAAATTGGCCTGCTTTACTCCCCCTTCCACAAATAAACTTTAAAGTACTCCCTTG  
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TTTCCATGTGGCTTTTGGTCTGAGGGTAGCATGTTTGGGTTGGGTTGTTGGAGGGGT  
TTCCCATGGACATGGTTTTGTACCTGCCAGCCATGCAGGATGCAGCATGGTGGGTGA  
GATCCTTGCTCCACTGG

>non-DHS356

TGATCATTCATCCTCACAATAGCCATTTTCAGGGGAGGCTTTATCTGCATTTTTGGAA  
GGAGGGTGACTGAGATCTTGATCAGCAATCAGTACAGAGTTGAACTAAATTTGGAATG  
AAGACCTTTCTGCCTTCACTGCACACGTTCTCTCTGCGGCTCCCACTGCCTCTCAA  
TATAGCCAGTGCTAGACTTAGATCCCTGAAGGGCAACTAGATTTGGATAGTTGATCA  
GAAGCCCAGAT

>non-DHS357

TTGATCAGAAGCCCAGATCTAATTCTATAACATTGTTTCTATGGGAAAAAAAAATGGA  
 TTCCTACTTTTAAACACACTTATAAACTTTGGTAATATTAACCCTTTTGTAGATGGAG  
 GGGAGACTTGTCTATGCTTGTGGATTAAATTCCTAAAATCTTGTGATTTAAATTC  
 TAAATACTAAGACAGTGAGGTTAGTTGAGAATTGGCCTACTGTGCACTGCTGGCCA  
 TATATTATGTTTCC

>non-DHS358

TACTTAGAGCTGAGTATTTGGTGTGGTATTGACCTGGGTAATGAGCGTATAACAAA  
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 TAGTAAAATTTATGTATTCTTAGTTCCAAGTAGTGGAATTTTATACATTTTATAATG  
 CCATAGCAAAGCACGATTGGAAATGAGAAGTGCTGTCTCTTAGAAGTTCTCTCA

>non-DHS359

GAAAAGTTGGAAACGAGATCACAGAAAGCCTAGAAATGCTGACATGCTCCTGGTGCT  
 GGCTGAGGCACAGAAGAGTTTGTCTAGAGATAATTAGCTCGGCGTTCCATTTCCCCA  
 GACCTGGAACATAACCACGCCCTTGGGTCATCAGACAACAATTTGGTGAGATCAACTA  
 CATACAAAGATCACTGTGGCCCCAGACAGACCAAATAAAAACACAAAAGCAGCTCAA  
 GGATC

>non-DHS360

ATGTCTACACGGCCAGGATGTGTGCGTGTGTGCGCGCGTGTGTGAACTCCACATGC  
 TGCTGCTGTCTGCTTCTGGCCAGTGGCACCGATGCCTCCCTCCTCCCTGCTCGCCCC  
 CAGATTCCCCTCCCCTCCCCTGGTGTCTTTTGTCTGGAGGGTGTATGGGTTTGTGTGT  
 GTATGAGCGTGTGTGTGTTTTTGGATTTACAGACTAATTTTCTGGAGTTTCTGCC

>non-DHS361

AATGGTCACTGTGGTAAGATCAGGGGTCTCTGGTCGCCACCGTACAGAGGCACACCC  
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 TAAAAAAGAGAGAGAGAATACATACTACACGAGGGTACGTACACAGTTCATGCG  
 TACGTTTTTATTCTGCGTAAAGCACCAGGGGCCCTCCATCTGGCCTCCGGGGTTCCG  
 GCAGTAGGCGTGCCCCCTCCAAGCTC

>non-DHS362

CTCTGAATTCTCAGTTCCCTTGCTGATGCTGTCAGGTGTGTTTGAGTGAGGCGAGGG  
 CAGGAATGGCGGTCTCCAGGGACCTGGCTGTCATCCACCTCCACCTGCTCCTTAGAC  
 AGCAGATGTTTCTGGGCTAGGCCCTGTGTCAGCCCACTGGAGACAGAAAAGATCCA  
 GTGATGCAATCTCTCCTTCAAGTTGGCCAGCTTAGTGCACTGGCCAACAGTGCATTA  
 TAAACAGAGCACCAGAAGAAGGG

>non-DHS363

CATGGGAATTTAGGAGCTTGGTGGGTTGGATAGCTTTTTCTGATTGGCTTCCAAA  
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 TAAAGTAGGAAGAGTCAGAAGTCTAACATCAGTTTAACTGGCCAAAATCAAAGTATG  
 TGCAGGGCTGCAATTTCTCTAGAGGCTCTAGGGGAGAACTATTCCTTGCCTTTTCC  
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>non-DHS364

AGGCTCTAGGGGAGAACTATTCCTTGCCTTTTCCAGCTTCTGCTAGCTTTCCCTTGG  
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 CTGAAGTCAAATCTCCCTCTGCTTCCCTTTTATCAGAATTTTATAGTTACTTTTGT

CAAACACTACATTCTGCTCTAAATTCACCTTGTACATAGCTTACTCATGCTGAAGAATCA  
ATTTGAAAGCTCATCCAAGAAGCTTTCTCGGATTCTTACAGTGCAT

>non-DHS365

CAAGAAGCTTTCTCGGATTCTTACAGTGCATGAACTTGCTTTTCCCTGGAATAGAGT  
CACAGAAAACATTTGAACTGCTGTGATGTCATTGACAATAGTAACAATAGATAACGT  
TTGTGTGGCACTCCCCAAGACTCAGGCATTGTGATAACTAACACTTTCCATGAATAA  
TGTCATAGAATTCTCACAAACATCCTGTGAGATAGACACTATTATTTTCAACCCCAT  
GTACATATGAGAATACTG

>non-DHS366

GAGTTGGAGAGACTGAGTAACATGCCCTAGATGACTCAGCTAGCAAGGAATGAAAAG  
CACATTCTAACTCCACCCACATATATAGTTCCAGGATCCCATCTCTCTACCTCACAT  
TAATTAGTTCTATAACCAGCTTTATGTTTCTACTAGAATGTGCATGTTTTAAAGGCT  
GAGCTTTCTGCATTTTTATGCCCTCCTGCACCTGGCACAAATCCCTGATTCCATGAA  
T

>non-DHS367

GAAAATCACCGTCATCCTAGAGAGTTACAAGGGCTATTTTAATAGAACCCTGATTGTT  
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CTAGCTTCCTCTTGCTGTTTCTTTAGCCACTGGTCTGCAGGCGTTTTCTTCTTCTAA  
CTTCCTCTCCTGTGACAAAAGAGATAACTATTAGAGAAACAAAAGTCCAGAATGCTA  
AGGTTGC

>non-DHS368

GCAGCTGGGTGACTCAGGACCCCGGTGGCCGGGCCCCAGCTCCATGGGACCTTTGT  
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CCTCGCCCTTGCCCTCTGACAGCTGGGCCAGCAGGCCCCCGCTGAGGTCTGGGGTGGG  
GGGGTCCCTGAGTCTGGGGTTGCGGCCCTTCCACTGGGCTCAGGAGAAGATGGAAC  
ACAGAGAGGTAAGATGGGGTTC

>non-DHS369

GCCAAGGACCTCATTTAGTTTGTGTATTTAAAACCAAAAAGCTTTTGTCTTTAAGAAA  
TAAAACCATTTTTTTAAGCCCCAAAAGGTTGCAGGAAGGTGGGTAAGGGCCGCAAAC  
AATGTTGGTGGCTGAGATGAGAGCTGGGACCCACAGGGCTGGATGGCCTTCTCTGGG  
CCTTTTCTGGCCTGCAGCAGGCATGGAGACCGCCTCGGCCTGGCTCAGACCAGCAG  
CCATGGGAGGCCCACTGCCCTCATATCTGTACTGTTCC

>non-DHS370

TTCCTCAAAGATGACCTTGAGTACCAAGCCAAAGATTTTGGAGATATTTGGTGGACA  
TTGGGCATTATACATACCCAGTAAGATATTAGCACCATGAAAGCTCCACAAAAGTGT  
CCTGAGCGCCTAGAACAGTACTTGGCACATGGTAGATCTTCAATAAATAGTTGTTGA  
AGGAATTTGTTAAAATATCAGAGCTATGATTTAAGAAAATTATTCTGTAATCTGAAT  
TTAGGTTGGGAGTGGAAAGG

>non-DHS371

ATTAAAGGGAACGTTTGTACAGTCTGACATGCTCCATCCTCCTGTCCCCCCCACACT  
GAACCGTCTCCAAGAACCTTCCGGAGAGCCCACAGTGTGAACAGTAATGAATGCTCC  
ATAGCTGGCCGCCTTGCACTCTAGTGGGAACATGATGTTGGGCACAAGTGCCAGCA  
GGAAGGTGGGAAGCTTCCCAGGGATGTTTTTCTGGAGGTCAAGTCCCCCCTTGGGC  
TGTGAAGTAGCCGGTACTGGG

>non-DHS372

GCTTCCACGAGGTGACTTTTCTGCAGCGGCCAGCCATTCCCTCCTCCCATAGGAA  
GCACTTTGCTGACTGCGATGTGGACCAGGGACCGTTGCATCCTGGTGGATAAATCCA  
CCCGGGAGTGGCCTCTGGGTGTCTAGAAAGGAGACAGCCTGACAGAGCAGGCCCTGG  
AGTGGCCCTTCACCCCTTTTAGGGGTTTCATGCACCCCTTCAAGAATCTGGTAGAAAG  
TGGGGATGCTCATCAC

>non-DHS373

CTGGGTCTAGGCGGTCTCTATCCCTCCCCCAGCTTTTCCACATTCCCTCTCCTGCC  
TCCCCGCTCCTCGGCCTGAGAGGGGAAACCCAGCCAGGGGGGTCCAGCCACCACAC  
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GGTGAGGACCAAGCAGGACTTG

>non-DHS374

GGAAAAGATTGCTTCTGATGGAGGCCCAAATGGATATTAATGCTCACTGGCCAGGCA  
AGCACTTCTCAGATGAGAATGGCCTCTCTCCAGGGCCCCCGGAACCGGGTGTCTGA  
GCGCCAGGGCTGGCGGGGATTCCTCATCGACTCCCCTCTAATCGCCCCTGAAGCTG  
AGTCCGTCGGAATGACCGGCCTCCAGCCCAAATCCTGATTGACTTCCCGGGAGATT  
GGCTTCATGTCCACCAGAGTGGAAG

>non-DHS375

CTCAGGGCCACAGATCCACTGGGTCTTGCAAGAGCTGTCCCTGGCCTGGGATGGGG  
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AAACCTGGGATTGAGGTTTCTGCAGAAAAGAATCCTCAAAGCTGCCTTTGGTCCTT  
ATTAAG

>non-DHS376

CTGAGGTGCTGTTAATGACATGGGCCACTGGAAGGACAGGGTTCATGAGGTCACAGG  
TGAGAAAGTTCTCTGAGAACCTGAAGATGAGGTCAAGTCTGGTACTATTAGAGATGG  
CCCTGATGTCCAGGGCCCCCATGTGGGGTCTTCAGGCTGTCTTCATGCTGAGCTC  
AAAACCCCACTGAAAGGGCAGGGCAGGCTTCCAGGTCTGACCATGCCCCAAGCAGA  
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>non-DHS377

GGATCTCTGGATCTAAGGCCAATAATGGATGACCGGTGCCACCCCCAACCTAATGG  
GAGATGGTGTTCAGAGAAGAGGTGTGCTCCTCCACAGAAAACCTGTAATAATCAAGGCT  
ACGGTGGGGGATTGACATGATTAACCTGAGCTAGGAGTGACTTGGTCCCTAGATGTC  
TGGGCAGAGGTGGAGAGGCCGAAGATGGGGGAGCTGCTGCTGCACAGTGAGTTTGGT  
GATTGGCGTCTGGTGTAAGTGAT

>non-DHS378

ACGGCTGTTGAGTTACCCTAGCTACTTCCCTGGGGCGGTACCAATAGTGGCAATAACT  
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TACGAAGTAGTCGTTAACGTAGAGGAGTAAGTTGAGGCTCGGAAAGTAATTTCCCTA  
AAGTCACATTTGACGCGGGGCTGAAAGCCAGCATCATTTAAGACCTTTGCTCTCCA  
GTAATTCTGT

>non-DHS379

ATACTGTCTTTGCTCAGTGTGCTGGAGCCCCAAAGGAAAGCAGCTGGCAGTGGGAAA

ACAGAATGGAAGTGTGGTCCAGTATCTTCCTGTAAGTTCTTATCTTGAAGTTCAGAA  
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 AACTCTTCCCTTTCCCATAGTCCT

>non-DHS380

GAATTGGGGAGGAGGTAAATTTGTTTCCTGAGGGTGTTTTTCTGAAAGTAGCTGACA  
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 GAAGCATGGCCATCCAGCAGTCTGAGCAGTTAGTAAGCACGATAGCAGTGACATT  
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 TTTCAGAAGGAGTTG

>non-DHS381

GTCCCGGTAGATATTGGTGAGCTTGGCCACGTTGCTCTCGCTGACGGGCACGGCCCA  
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 GGTGGGGCCACGATGGTGCAGGTCTCTGTGGTGTGGCCGTACCAGGGGTAGTTCAC  
 CCCATCCGAGTCGCTGATGGCTTGGATCTTGCCCTCCTGGAGGTCGGGGAGCTCCCA  
 GCTGGACCTGAGGACAAGGAAGGCCAGTTCACTCACTC

>non-DHS382

AGGAAGGCATCAAGAGTGACAACGCTGGGCAGAGCACATGGCTGCGTGGCCTGTCAG  
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 GGCTGAAGGGGAAGCAGGGACAGGGACATCCTCAACTACTCTTTCTGGAAGCCAGTG  
 AGGAAGGAAGACAGCCTGGGGCTTAACAGCAGGGCCAGGAGAATGGATGAATGAATG  
 GGAC

>non-DHS383

GGCCAGAGGGTGTCTGAAAGGCCTCTTGGCTGCAGGGTGCATCTGCTTTTGGGACAG  
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 ACCCGTGCT

>non-DHS384

GGAGGTGGGTATGTTTGCACCTCCGGGCCGTCGCTCCAGGAGAGAGAAGCTTGCTCCT  
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 GACAAGTTCAGCTCTTTGATGTTTTCTGGAGACAGTAACAGATGCACTTGTGTTGAG  
 C

>non-DHS385

GGGCTGTTTTGTAATGAGATGCTGCTGGCAGGCCACTCAGAGGCTCCCAGCTGGGTT  
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 CAAAATGAGACTTGGAGTTTGGGGCTCTGTCTCGAGTGGGTTTGTCTTTCATCCATGT  
 GGTGTGGTTTTTTCTTCAGGCACACACTGGGACCCAGTGATGAGAGATGGGACG

>non-DHS386

GGAGATGTGGTTCTCGGACAGGCGCTCGCTCCC GCCCGGGGGCGCGCTGTGGCC  
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 CTGGTAGCTTCGTTCTCCCCGAGCTGCAGGCGGTCCCACCCGGGGCACTCACCAC  
 GTGGGACCTCATGGGTTCTAAAGGTAATAACACGCTGGATCCCAAAGAAGTAACGG

>non-DHS387

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 CCCCTGCATCTCCAACAAGTCCAAGGTGACAGCTGGTGCTAGGGGCGTGGGGTTAAT  
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 AGAAGGGTAAGATGATGACAGG

>non-DHS388

GATTGTAAAACCTTCCCTGCTCCTGCGTGGCTCTGCAAGCCAATCGAAAATTCCGTC  
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 CTCAGCTGGCTCTGCGCCTCCAGCCAATCGGGGTGCCCGTCTTAATAACAACCAGC  
 CAGTCAGTGCCCGGCGCGACACCAGCAGCCAGTCAGGAAGCCCTGCGTTCATGCT  
 TCCAGCCATTGT

>non-DHS389

GTCACCATGAGACAGAATGTTTCCCTCCATATTTTTATCAGGCACTTTTGTTCCTG  
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 GATATTCAGGGAGAAGATTGGATACTATGGTGTGTCAATTGATCTTTAAAAGAAATA  
 AGCAAAGTTGATGACATGCTGAAGCTCAGGGCCAATGCAGATCTGCCTCCCAAGAG  
 GCCAGTTTCAATTAAGGAGA

>non-DHS390

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 TGCATTTGGTAACAGGAGAATTG

>non-DHS391

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 AGATGATAATACTGGAGTGACTAATGATTGTGACCTCATTAAAAGAAAAGGAGACT  
 ACTTCTGCTGATTAGAGGGATGGTAGCCATGGATTAGTCATGGCAAAGACAGGCAT  
 GGTGGATCTGTCACTCATTTATC

>non-DHS392

GCAGACAAGAGGAACAGACACTTCCCCAGAGAACCTCCAATGCACCAGGCACTTTGC  
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 GGAGGCTCCCAGAGTTTAAAGTCTCTAGTCCAAGGTCACATTGCAGTAAATGAAAGGT  
 GCTGGCCATGGCCCCAAGCTCACAGCCACTTACAAAACAGCAATACCGTTTCCATTA  
 GGCTTTGGAGGTCTCCACCCAGTATCAGTGAACA

>non-DHS393

AGACTGCTCTCCAGTCCCTCACCCAGCCCTCGCCTTTCCCTCACCCACCTTTCTTT  
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 CCCGGGGCCTGCCGGGCAGCGCTGGGAAGGGCGGCAGAGAGCGCGGACTGGACGCTC  
 GTCTTGGAATGACTCAGCCAGGAGCAGCCGCCAGCAGCATGGGCCACGCAGCAAACG  
 GGCGCGCCGTGGGAGCTGGAGAGGCCAGGTCTTCTG

>non-DHS394

TCGAGTATTTTGCCATTGTCAGAGTTTGGCTGTCAGCTTTACAAAGAGGATCCAAC



TTGAGCTTTGAGTAATATGGAGACTCCTGAAACAATGATAGCAGTTGACTTCAGAGC  
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>non-DHS402

CAATTGGAGTCAACTTCCATGACTGTTCCGGATTTCTTTATTTTTGGGGGCAGTTCAT  
CCAACTTCTATTAAACGGCAACTAGTTCACTTTTGAGAAGTGGTTTACAAGAAACA  
ACAACAACAACAACAAGCAGTTGCGGAGGAAAGAAAAGAGACAAAGTAAAAAAAAC  
GGAAAAGAAATCTCCCAGGAGAAAGGGATGTGGAAGCTGAAAACACGGACAATTTCC  
ACAGTAAGA

>non-DHS403

CAGATGTGCCTGGTGGAGAGATGGCCAGAGGTCCGACAGAAGAGACGATCAAAGAG  
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CATTTCCACTAAAAGCTCCTAAAAGGGCCGACATGGATTGGGGTGGGGACCAAGGCT  
GGGAGGAAAGCTGAAGAGCGCTGTCCCCCTCCCAGGCTCTGCCACCTCCCAGGTTCC  
AGTCAATGGGTCTGAG

>non-DHS404

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GAGAAAACAAGATTGAGAGAAAGCAGGGCTGGATGCTGTGGATGAGTGTGGGGTCCC  
TGGCTTACGCCTACTGTTCCATGTTGAGTTAAATTGAAGCCAAAGTCATGTCTCATT  
TG

>non-DHS405

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GGTGTCCCTTTGCCATGGAAGAGACTCCAACCACACACATCAGTTAAGCTGCCAACA  
CTGTTTCTCCTCCCATTCTGCTCTGCGAACAACGCACAGTCCAGCCAGGAGCTCAACA  
GGGAGGGTTTTTCTTGTGTGTCATGGCTGAGATCAAAGTCATTGTACACCAAGGACA  
TAGTGGACAGAA

>non-DHS406

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AGGCTTCTAAGACTTTATGTTCAAAGCCTTTATGTTCTCTAAGACTTTATGTTCAA  
ACATGTTTTGATTGATGTCATTATCTTTACAGGGGAAAATGCCTGCTCTAGGAAGCA  
GGTAGCCTACTGCGCAGGGCACTTCATCCATCCATCCATCCATTCATTCACTAAGAA  
TTGTGCCAGCCCTTTT

>non-DHS407

ATTGTGCCAGCCCTTTTGTAGGCCTTGGGAATTTTAAAATGGTTAAGAGAGCATCT  
ATTTCCCTCCTGAACCTCATGGCCTACCTGGGGAAAGAGAGGAGGGAATATACTATCT  
GGTCCATGTATCATGACCAGCACAGGATTGCAGGTCTGCACTGGCATGGTGAAGGCT  
AAAGATGAGGCTTTTCTGCCCATATCCTGGAAAACCCCTTCCCTTCTGAGCTAAGAG  
TTGGTGGGCTTCTCCCTGACAATCTGGTTTCT

>non-DHS408

CTTCTCCCTGACAATCTGGTTTCTGGTGGGGTTGGTGCCACCCTGGTCCCCACAGTA  
GTGACTCTTTTCTCTGCACCTTCCCCACAGGAAAAGGGTCCCGCCAGCTCCTGGATG  
CCAAAGTCAAGCTGATTGCCAACACTTTGTGCAACTCCCGCCAACTCTATGACCACA  
TGATTGATGACAGTATGATCTGTGCAGGAAATCTTCAGAAACCTGGGCAAGACACCT  
GCCAGGTCAGAGACTCCAAGTGGTGCTT



>non-DHS409

CTCCAGCTCCCTCCTAAGCTCGCCCGCCAGGCAGCCGCAGCTGCACACGCCCGCTTG  
CGGTGGGACCCGCGGCCGGACCCGTA CTGCGCACAGGACACGCAGTGTCTGCAGC  
CGGCCGCGGGTGCTGCCAGACACACACTCTCTCTCTCTCTCTCTCTCTGTCTC  
TCTCTCTCTCTCTCTCTCTCACACACACACACAGACACACACACACACATACACGGG  
CACAAGGGCTCTTTCTTCTTAGGG

>non-DHS410

AATCTACTGCAGATGCTGAGTTCCAGGCACCACGCTCCACCACCTGGGCAGGTGGAT  
GATTGACATGGGTCTGCACACAGTGGGGCGACCGGCTCAAGGGA ACTCACAAAGAAT  
TCCGCCTGCAGCAGGAAAGGGTCCAGGGCCTTTTCATGAAGCTCTTCTGCTTGGAGG  
ACACGGGAGGCGCTGAGCAGGTA CTGCGGGCGGACTCCTCACGTGGGGACATGAGA  
TAGCCAAAGCC

>non-DHS411

CTCACGTGGGGACATGAGATAGCCAAAGCCCTCCTCGTTGCAGCCCGGAGTGCACAT  
GTCCAGGGT CAGGGAGACATTGGAACCCCTCCTGGAAGGACCAGGAAAGGGAGTGTG  
AGCCTCAGGGGCAGAGGGACGGGCATGAGCTGGGGTCTCCAGGGCTGGGAAAATGAG  
GGAGGGAGAGATCAGCTGGGAACAGGGTGGGGTTGAGGAAGAGGAGTGGGAGTGTGA  
CAAGACCCCTGACAAAGAAGCGTGAATCTCA

>non-DHS412

CCTGACAAAGAAGCGTGAATCTCAGCCCTGAGGCATTGGCCTGACTCCCTATCTCCT  
GCCTCCTGCAGTGGAGATGTTAACTTAGTGGGGATTTGGGGCTCCAGTTCTAAAAGT  
TCCATCCAAAGCTACCCCAACATGGCCTTACCCTGGACTCTCCTCCATCACCGTTGG  
AGGAAGTTCTACCCTGTGGTCCCCAGGAAGCTCAGAGAGGGGACACCTGCCTGAAGC  
ACAG

>non-DHS413

GAGAGTGCTCTCTTCTGGT CACACACAGCCTCCTTCAGCCTCAGAGACCTGCAATCT  
GACTGCCTTCAGTCCTGAGTCTTTTTATCTCCTTCCTGGCCAGAGGGCAGGGACCCCA  
AAAGACGGGGTCTTAGGTTTTCTCACAGCCAGCATCGTGGCACTGGGAACTTGGGA  
ACCTGGCAACAGTTTTCTGTGCAATAGCTTCCAATGGATTCTGT CACAGAGCAGCCAG  
GAGAGAGCCAGATTCCAAATACA

>non-DHS414

AGGAGAGAGCCAGATTCCAAATACATGAGGCAGGAACTAGAAGGCAAAGACAAGAG  
GACTTAGAACCAGGGGGAACATGCACAGGAGTGGGTAGAAGACACCCTGGGGGAGGA  
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CTGTCTGGGGCCCCGAGGATACAGCCCAAAGGGTCTGCCTGATCTCCTGTGCCAT  
CTTGCTTTGTACCTGGCAAAATCTTCAAG

>non-DHS415

TGCTTTGTACCTGGCAAAATCTTCAAGAAGGGAATTCCTTGCTGCTTGT CAGAAGT  
TCAGAATTTTTCATCAGTTCTTGGTGA ACTGCTATAGGACATCCACAGACATAGA  
AAGCCTTTTCTTGGCTGGGAAACTCTGCTGACTACAGAATAAGCCTTCCAACAACCT  
GAGATAAAAATAGGTTGTCTGTCTCCTCCGCTGAATAGCATGAGAGGCCAGAAGAGA  
GAAGAGGGGCTGTAAATCTCCTTT

>non-DHS416

ATGAGAGGCCAGAAGAGAGAAGAGGGGCTGTAAATCTCCTTTGTCTATTTTGGGAAA

GAAGTGCCTCACTTGGTTTATTGATAGTCATGGAGGGTAAAGCTGGAAGGACCTCCA  
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 AACCAGAGAAGCCCT

>non-DHS417

TAAACCAGAGGGCAGATAATTGCTGATATGACCTCAACAAAGAGATAAGGTGGAGAA  
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 CTGATTCTCTGTGTTCTGTGCTTACTTGTTCCTCCAAAGCATTCTCCCAGCATGTC  
 TCTTCCAGCTTAATAACTGAAAACACTTAGTCAACAACAATACTCTAGTGGAAAA  
 GAGATCCTGTTAGTTTTCTAGACGATG

>non-DHS418

AAAGTTGTGCCGAACTTGTGCGCTCCGGGAAATGCCCTAAAAGGCGACGAGCCCTCC  
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 TAAGAGACGCAAGTCTCAGCATTATGCCTGGCTTGCGCAGGCGGCGGGCGGGGACG  
 CGAGCGAGGGCGCGAGGACGCCACCGCGCGCCTTGGCTGGGAGTTTGGGGAGGCGAG  
 GAGGCTGTGGCTGTGCACTCCTTG

>non-DHS419

TCTTTCTTGTCTCAGGGACCTACCATCCACACCTGCTTATAGGGTGGGGGCTGCAG  
 AAGTTCTTCTAATTAAGGTAGCATGAGCATGCCAGGCAGTCCCCTGGGGTCTTTTTTC  
 AAGAAGTGAAACCTGGTAAGGCAGAACTTTTTTTGCACCTCCTTCAGCTATGGTAA  
 GTGTTAAACCAAAGTAATTGGAGCGAAGCCCAAGGTAGCAGAAGCTACTGATTTCTT  
 GTCACCTGATGTCTATCAGCGATT

>non-DHS420

GTCTATGGAAGTCGCTTCGTCTCTCAAGCCTCAGTTTCCCCACATTCATGGAGAACT  
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 AGCTGTGAGCAGCAGGGGCGGCGACTTTTTCTTTTCGAGAATGATGATGCATGCCTTG  
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 AGAGTGTGATTCAA

>non-DHS421

GGATGAGAAATTGATGCGAGGATCAATACAAGCTTAATTTGAATTAATAAAAAGGAAA  
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 CGTGTTACAATCAATGGCCTTTGAGGAGCTCTTGAGTCAAGTTGGAGGCCTTGGGA  
 GATTTTCAAGTCTTCTGTTTATTTCTTCCCTCTCTCATGTTATTAATCCC

>non-DHS422

ATCATCACAGACTGGGTGAGAATGGTGAGGGCGCAGATGGGCTGAAAGGGAGAATGT  
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 TTTTTTTTTTTTTTTTGGAGACAGTTTCACTCTGTCCCCTAGGCTGGAGTGCAGTGGCA  
 TGATCTCGGCTCACCACAACCTCTGCCTCCCAGGTTCAAGCGATTTTCTGCCTCAG  
 ACTCCCCAGTAGATGGGATTACA

>non-DHS423

TCTTTAGGCTGACCAGAGAAACCACTCCAGAGGGAAGGGAGAAGGGTGATGAGGCA  
 GCGGCTGGCTCCTCAAGCTGAGGGCTCCTCAAGCTGAGGGCTCCTCACCTGGGACAG  
 GGGATCCTCATTCAACAGGGAAATGACTGAGCTGAAAGTCTCGTTTCTGTTGTCTGG

ATGGTTTTGGGACAGAGAAGAAATCATGGCTGAGCCCTGAGTGAAGGCTGACTTGGG  
CTCCCCAGCACCTGGAACCTTGGTGT

>non-DHS424

ACCTGGTTGTCATTGTCTTGATTGCATTTCAGTGTCAAAGGAGCCAATTTGACATCCA  
GGAAGACATGATAGCTAAAGGGAAGGCAGTCAGAGAACCCAGGACTGGTGAGGAAAG  
GGTTTTGAATGTCGGAATTAGAAGGATTGCCCTGTGGCCAGAAGGATTTAGCTCAT  
CGTCGTCCTGCTAGCCTGCCATCTTTCAGACTTTCAGGGCAGGTGGCCTGGTCTC  
AGCCCTCAACTTGAGTTAGTCACACCA

>non-DHS425

CATCTGTACAGTGGGACTGTTTGTGCAGCCAGCCGGCCAGCTTCATTTGCCATGAT  
GAGAATTTATCTGAGGGGCGGGAGAGGAAAGCCCTCCCTATAAAGGTACAGGCGCTA  
AAATGTCGTGACCTCAGTGGTCCACCTAAAAGTCGTTCTGGCCTGGGTTCATCGCCTG  
TCGTGCTATGCCTTTGTCCAGCCCTTCTGGTTGGGAGTTAAGTGGCACCTGTGC

>non-DHS426

GAGTTTACTTCACCCGACCTGATTTTTTTTTTACCAGCTTGGAAATTCCTCTTGAACC  
TACGTCTCCATATGTCACATCATGACAGGACTAGCCTGAACAAAAGCCATGTCTATC  
TAAGCGGAGGCTGTTGACTTCATTTCAGTTTGCATATTGTATATAGCAACACAAACAC  
TTGACAGGTATATACTCCAGTCGCCACATTTGTCTGCATAACAGCTTCACTCACAG  
GCCTCACCGTCACCTTATTTTTGTGTCC

>non-DHS427

CTGCTTAAGACACCCAGTTCTCTCTGGAATCCCTGTTTGGGTTTGGTTTGGAGTTGG  
AGTTTGTTCATTTCAGGGCAACTTGATCCCGGCCAGCCTCCAACCCCTCACTGCC  
CCCGGTATCCCTGCCCTCAGGAGGGTCTTGACTTTGCCACATGCTGACAGGGCA  
GGCTCCTCTAGACCTCCACACGGGCACTGAGAGCTCTGGCTGTCTTTGATGTCCCG  
AAAGGAGAT

>non-DHS428

AAACAACAGGAGGCACCTGAAGCTAGCCTGGGGGGCCACGCCAGGTGCGGTGCAT  
TCAGCAGCACAGCCAGAGACAGACCCCAATGACCCCGCCTCCCTGTGCGCAGCCAGT  
GCTCTGCACAGAGCCCTGAGCAGCCTCTGGACATTAGTCCCAGCCCCAGCACGGCCC  
GTCCCCACGCTGATGTCACCGCACCCAGACCTTGAGGGCCCCCTCCGGCTCCGCCT  
CCTGGGAGAAGGCTCTGGAGTGAGG

>non-DHS429

CCCGACAGTGTCTTTGCTCAGGGAGGGGAAGTGAAGGGAAGGGCATGTGGGGTCAG  
GACAGGGCCTTGCAGGGGAGCAGCCTATATAACGACTTCTTTGGTCTTAACCTGCTG  
GGCCAAGCTGGTCTGGGTTTGGGGTGGGGAGCTTGAGCTCAAGATGTGCCTTAA  
GTGGCTTAAAGGGAAGAGCTGAGATTGGGGTGGGTGGGAGGAAGTGCTGGACATCA  
GGCTGGGAGGTGAGGACCAAGTGTGCA

>non-DHS430

ACACAGCCAGAAAGTGGCATAGCCTAGATCTGAATCAGATCTCACAGTCTCCAAAGC  
CAATTTCTTTTACCTGTGCAGAGGAAGAACTCCCACAAGAGCCCTATGAGGTGAATG  
GTACTAGGGAAGGAAAGTTAAAATATGAGGATGGGGTCCAGGCCTAGCTCTACCGC

CTACTGGCTGAGTGAATCTGGGCATACCATTTTCATCTTCCCAAGCCTCACTGTCTCT  
AT

>non-DHS431

GAAAAGACAAACTCCAGCTTTCAGATCTGCCACTGCAAGAAAACCAGGGTTTTTGCT  
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AGCCAAACCCACATAGCCATGTGGATTGGTGACATCCAGGTGACTCTGTGACCCTA  
GGATGCACGGGGAAGCACAGAAAACCTTCTCAAAGACAAAAAACTGCTTTAGTTCT  
GTGTAGCAGTGGCTTGAAG

>non-DHS432

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GTTAGGATGCAGCTGGCATGGAACAGCACGGTTTTCTCTGTCCAAAGAAGGTTTGC  
AAACAAGAGTAAAATTCAAACATTTAATAATTGCTGTGGTACAGGCACACTGCCAA  
TGAGAATGGAGATCAGCTACAACCAAACAGCATGGTTCATGGGGGGGTGTGCCAGCCA  
AACATCCACCCTAGCAACAAG

>non-DHS433

CAAACATCCACCCTAGCAACAAGGAAGCCCACCCTGCAAACAGGGAGAAGAGGATCT  
GCAGGGTGGGGCCTAGAAGTCAGCAGAAAATCTGCCTATCTCCTATGGAAATCCCA  
GAGAGGATTTTCATTAACCTCTCAGGGCTCTGCAGAGCATGATTTAAAGCCATTGCT  
GGGCCGAGGGGGTGGAAAGTGGGGAAGTAAGTGCCTTCAGTGTCCAGCTTCCAGGCGC  
AGTATTATTACT

>non-DHS434

AGGCGCAGTATTATTACTCCAGTGTACAGGGCCAGCCTCCAAAAGGGCAAAGCCCTG  
GTTCCACCCAAAGACAAGTCCATGAAGGCTCTGACAGGTCATCATGCTGTTAATCAG  
CATACTTCTCCCTCTGCCAATGAGTATTCATATGTAGTCTCCCCAAGCACTTGTTC  
TGTCTAGCTTTTATAGATGAGGGCCTAGCACCCCTCACTGCAGTCCCAGGACTTA  
GAACACAGCCTTGAT

>non-DHS435

CCTAAAGTGTGCCCATTAATATGAGGATAGATTTAGGCTCATAAGCCTTTTGGTAAC  
ACTGAAAGTAGTATCATATAGGCAAGCTCTCCTTATAAGTAAGGCTTTCAATTTTTA  
AAACAGACATCCTGCTTTAACAATTTGTAAGATGACTGTGCAGTAATAAAAGTCCTT  
TGTATTTCTCCACCGTGTTTTCATTAAGAAAAATGGAGCTTGTGGGCCACGATAG

>non-DHS436

CACAATGTCAGAGGGCAATAAGAAAATAAAGCATGCCAAGAGGACAGAGAGAAAGAG  
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TATTTGAATGGAGATGTGTGTAACCTGAAGAAGAGAGCCATGATGATATTGAGGTGA  
GCAATATCTAGGCAGAGGGACACAAATGCCAAGTCCCAACGTGGGAAAGTACAGA  
GAAAATC

>non-DHS437

CTAAGTCACCACTATGGGGCTAGGCACCCACAGAGCTCCAACAGGACACCTCCTCCT  
GCCCCATCAGCCCAGATTAGGGAGGGAGTGGGGGCAGGGGAGGATGGAGAGGGCCTG  
ATCACTGAAGCCCACAAATCCCACTCAATCCCTAAAGTGGGAAATGGGGAGCAGAAG  
CAGGTCTGGGGATAAAGAGTGAGACAGCCTCTCACCATCAATCATGTGGGGCTGACC  
CCAAGGAGGATCCGGGGAATGTAGGATGATTGCCCTC

>non-DHS438

ATGTAGGATGATTGCCCTCCACTGTCCCCACCCTGTCATTCCCCTATGGCCCAGTCT  
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 CCTCCTCTGCATACTGGGCTCCATAGGGGGTTGGTCATCCAGCATCAGGCTCTGG  
 GGAAATAAGGGCCAGACACCCAGGATCCCCACATCAAGGACTGCTGAGAGAAGTCAC  
 AGCCCAGTCCAAGTCCCCATTCTTTAAC

>non-DHS439

CAGTCCAAGTCCCCATTCTTTAACCCAGCCATGATTCCATTGCCACTTGTAACCT  
 CTA CTACTCATCTTGAGACTCCCTGTATATTCCACAAATACCTTGCCAGGCTCCCCTG  
 TGCCCTCCTGGGGCCCCAACCCEAATGACCTTACTCTCACATGGCCAGTAGCAAAC  
 ACTTGAATGCAGATTTGGCCCCTCAAAGCCTGCACTCCTAGCCACTCCTTCATCT  
 TCCATAAACATTGAAGGCATCTACTAAAGTCCC

>non-DHS440

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 TTTCTGAAAGTGAGGCAGTGTGCTGGGCACAGGTGACCTTGGAGTTAGACTTCAAAG  
 GAGAAATGACTTTGGTCTAGACAGACAGAGAAGGGTGCCTCGAGTAGAAGGCACAGT  
 CTGTCCAGA

>non-DHS441

CTCTGCATGGCTTTCTGGAGTCCCTGTGACAGCCCAAGACCCCCAAGGGCCCACTCG  
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 CAGGCTAGACCAGTTCTTGGGCTGTCTTGGTAGAGTGGTTTGGCCTATGGGCTACT  
 CTGTCTCTGTGTGGGGGAAGGGATGGCAGCCAGGAGGAATTCACAAAGGCACGAAAT  
 GGTCCCTTAATCCAACCTCAG

>non-DHS442

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 CAGTTGCCTGAGCAAAAAAAAAAAAAAAAAAAAAAAAAATCAAGAAATAATCCTAATTC  
 TTTCTGCTCTCACTTCCCATGTATAATCGTGTGTCTCTCCATCCCCGTTACCAGTAT  
 CCTAAT

>non-DHS443

CAGAAGGAGGCAAGAACCAAAAAAAAAAAAAAAAAGAAAAAAAAAATTCGAAGCGCCCGCA  
 GCACTGAGCCCGAACCGGCTCAGTCCCGCCGTCTCTAGAAAGTTCTGCACCCCGCCC  
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 CGTCCCCGAGCCGCTCCTGACCCACCTACCCAGCTCTCGCGCCGCGTGCAGAGGT  
 GCTCAAGCCTCCT

>non-DHS444

CCTGTCAGTTTCCCCTCTCGGCCAGGTTGTGTCCCAAATCCCCTCAGCCTCTTCTC  
 TGCACGTTGCTGAAGGTCCAGGCTTGCCTCAAGTTCCATGCTTGAGCAATAAAGTGG  
 AAACAATAAAACCTGGGTGTCAGACAACCCTTTCTGTTTCAGCCTTGGAGTGGTGGT  
 ATGGGTGGGTACATAATGGGTAGTAGACAATCAAGGGGTACCCACTTAGTTCCAG  
 TTGAG

>non-DHS445

ATGGGTGGGTACATAATGGGTAGTAGACAATCAAGGGGTACCCACTTAGTTCCAG  
 TTGAGCTTAAATAAGTGAGCATCTCATGTAGATGCCATAGTTGGGCAGGAAGCAGCC

CCACCATGCATGGCTTCCTGAGCACTGCACAGGCTGCCGCTGGGATTTGTGTCTATG  
GCTTCGCCCAAGGTTCCCAGCACTCCCTCCCTCCAGCAACCTGGCAGTTTTAGTG  
>non-DHS446

GGTAGTGGTCTCAAGTTTCTTTTGGCCAGGGAAGGAAAAGAGAAACGTGAAAGAATT  
TAGTCTCAGTTCGTCTTTATTCCCTCTTCCACCTTCCACCCTGGGTTGAATTAGTTG  
ACCCTGACACGTTTTGTGACCTTGGTGGGAAAGAAGAATCAAAGGCACGTCCTTAAC  
GTGCCTCTTTTCAAATGCTATCAAGTATGATGACATATTGCGGGAGAGTCAGTCACC  
CCTTGTAGGT

>non-DHS447

TATGACACAGTGCTGATAGCTTGGACACAGTTCCTTTAGAACCTTTATTCAAGTCAT  
AGTCGTACCTTTTAGAAATAAGGCACAAACAACATCCAACCCACCCCATCCCTCTGG  
GCTAGAGTCCCAAAGAGAAATAAGGGATACACCTGACCTGCAGTAAGGAAAGCAGAA  
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>non-DHS448

GGGATGGGTTGTAGATAAGAGCAGTTGAGAACCACGCTTCATCTCCCTCCTTAGAAA  
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TTCCAAAATGTTAGATGGCAAGAATATCTGCCCATCCTTCACTTTCTTTGGAAAAAG  
TTGCTCTTCGGTTTTTATATGCGATTGCAGTTTTCCAGTGTGTGAAACTAGGAAAAC  
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>non-DHS449

GACATGGGCAAGTCATCAATTTACACTTGTAACAACCTTTTCAGCTAGACCTTGGGA  
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TTGAAAGATTTTTGGTTTTGTGTTGAGGAAATTTCTGAATCTATTTGAATGTTAG  
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>non-DHS450

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CCATAACCTTACTCTCTATCAATCAAGTGTGCCTTTTACCCCTTTGCTGAAAGAAGG  
AGCACTATGGAGAGAGGGACCAGAAACAGGACTCCCCTCACCATGAAACTACTGTCC  
CAC

>non-DHS451

AGCCTTCCAGCAAGAGATTGTTTTTCAAGGACAAGGACTTTGATTTATTTCTGCCCC  
CACCTGGTACTGCCTGGTGCCTGCCACAAAATAAGCACTAACAAAAGTGTATTGTT  
TAAAAAATAAAAAGAAGGTGGGCAGAAATGTGCCCAGTGGAAGGCTGACCCCATTTA  
AGTGCCAACTACTCCAAACCGACATGCTCACGGTCTCTGGCCTGTTTCAAGTCCCTGCA  
AAACAGCTAG

>non-DHS452

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GGATTCTGGAAGGGGACATTTTAGTCTCCTAACCCCAAAGCTCAGGGTGAAGAGG  
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AGTACCTGGCA

>non-DHS453

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CTTCTCAAACGCACACCCCAGTGCCCTTTCTCGCCACAGGTGTGAAACTACATCTCC  
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CAACAGCGTGACGTGGGGGTGCCGAGATCTGCGGGAGCAGCGGTCCCGGCTTCAGTT  
CTAGCCTACCCGG

>non-DHS454

AGGTGATTCTTAGTAACTCCAGTAGCCTTCATTAGTTAAAAACATTATTATTTTTTGG  
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CCAGATTCAGAACAGAGGAGTAACTAGGGGATCTGATTTTAGAGGCCTTAATTTTCT  
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>non-DHS455

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ATATTATTTTGGAGCCAGAAGGCATTCCATCAGGTTGCCCCACAGTCATGTGTGCAC  
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ACTGAAGAGACGC

>non-DHS456

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ATTAGCAGTCAGCTAAAATTAGCTGGAGGCAGTGAGGGCTACAGGAGTTCCTCCACA  
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ATGACCATGACAGAC

>non-DHS457

GCATGTGAGGAAATAAGCTTGAAACTCAGAGCCTCCAAGATGATAAGCATGGCATGA  
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CAGAGCTACTACCACCACCACTGGCCTCCAGGGTTGGTGCTCCCCTAATTTAACA  
CTGAGTATGGCTGAAATAAGACTGGGCCCTTAAACAAAATGCCACGGGAGGCTTAGA  
TGTGACAACAGAAACAAGCCCAG

>non-DHS458

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TTCTCACTCCTGGTCACCTCCCTGAGGCCACCACCATTTTCAGCAGCAGCACCAGAC  
CATCCTCCTACATAAGAAGTGCCAGGGCTTTTCAGGAGGCCACTGGCCTTAGAAATG  
GCCAGTCTTTAGGGGTGAAAGGTCTCAGCT

>non-DHS459

AGTCCTTTAGGGGTGAAAGGTCTCAGCTTCTGGGGCATGCAGAAGGGAGGGCCCCCT  
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TCCCAAAGCAAACTCAGCTCAATCAATTTCTCCAGGGAAATCAGAGCTTTCGGGAAC  
CATCCAAGACACCAGAGTTGATAAGAGGCACCTGCTGAGATTTTCACCTGGGTTACTC  
CTGAACCTGGTGATAAGCCCTTGTGAT

>non-DHS460

CATGCAAAAGTGGCAAAAGCGTCTGCACTGGGGGCTGTGGGATGGGACTCAGACCCT  
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CGCTCTTGGCAGCCACCAGAAAGGAGCTATTGACCAAGAGAAGAGGAGCCCGGAACT  
>non-DHS461

AGAAGGCAAACCTGCAGAAAGGTCAGCCAGATTGCAGTTGGGCAGAAAATCTCATTTA  
AACTGTATTATCACAAACCAAAAAGCCCTATTTGGAAATCAGACGTAAATAATGCCAA  
GCAATCAGGGAGGTAGGAAGGACGGGTGGATCTCAGTGCCTGCCCCAGCCCCTGACT  
GCCTCTGACGAGAGGTGGACATCTGTTCTGCTCCGGGGGCAGAGGCAGGAGTATGGA  
GCTGTACTGCTGCTT

>non-DHS462

CGCCAAAGTGTCTAGGTGATGTATTACTCTTTATGGTAGAACACCTATTCATTATAA  
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TGCCTACACATTCCTTGTATCTTGGGGTAAAAGCACACGTGCTCTGGAAGGAATGTG  
TAGGTGGCTATGGGTGCACAATTTAGGGGGTTCGTGAACTCCAGTTAAGACTTGCC  
CTAATTATACC

>non-DHS463

CAATGAAGAGCTGCTTTGGAAGCTCCAAACTGGGGACCCGACCAGTCCGATTAAACT  
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AGTCAGCACAAACCCAGATGACGCCACTACACGGCCTGCGGGAGCTCCGGCTTCTC  
GTCCTCCGGTCTCCACCCTGAGGGAGACCGACCCGGTGCCGCCGGAGCTGGCCCTG  
TGCGCATGCTCAGTAGCTGCGAATGCATCCTAGG

>non-DHS464

AGGCTTTGCTCTCTCTATTTTAGTGACCGCTGACTGCGGAGCAACGCTCTTGTGTTC  
TGCGGGCCAGCAGCTCCGGGAACGGTCAGCGTCGGGGGCCAGCCTGGCGGGACATT  
TGGGGTCCCCCATACTGGACCTATGCCTGTTGTAAGATGTTTGAAGAGCGTCGAA  
AGATGAGATCATGTTGTGTCTTGAAGCTGAATGAAGAACCGGCTTGCAAAGGAG

>non-DHS465

CCAGTGCTGGCTCTGTTGTTTATATACAATTTTCCAACAAAATGTACACAAAATAAT  
CCAAAAGCATAAGTGAACAACCTTTTATGATATATTTTTTACTGTTGACTATAATGTT  
TTAAGAACTCAATTCCCCTATTATCTTTTCTTATCCACAGTAATGTATAAATTAGA  
AACCTAACCATACTTAGTAAAATGAGACTTTCAGTGTATGGAATATAATTCCTCAGA  
TTTTTAGCAGGACAGTTTTCTTCATTTCC

>non-DHS466

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TAAACTGTGAACCCTGCTCAAAAAATTAGCAAATGCTTACATGCTGAGAACCTAAAT  
ATCAAAATATAAAGAAAATGGAGCCTCTAAAAAATCTTTTATTACTCTGGGTTTTTA  
TAAGCATTCCTTTTTTATAAGCAAATGAAATTTGTGTGCACCCAG

>non-DHS467

CAGAGCACAATAGCCTGTCAGCCTCCCCTGCCCCCTTATAAATTGTGCCCTGCTGT  
CATCCCTTTGTTTCAGGCCAATCAGCAAATAAATTTTTGTGAAGAGAGAAGGCAG  
TTCAAGTGTTCGCGCAGCTGAAGGGAGGAGCTAATGTGGAATTTATTGGGAGAC  
CAATCAGTGCTGGAGGGAAGAATGACCCCAAATTTGAAGAAGGACTTTGTTGACC

>non-DHS468

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TAATGGCACTGCTTGTCACTAATATTAACACTATGGGGGCTCACAGCATGGGCTCAA



GGTGGTGTCTCGAGGTCTTCTTTTCAGAAGGCAGGCTGCACTTTCACCAAGAGTGG  
GCTGCCACACAGACACAGGCGGTTCAAGACTCTGGCATTGCTTTGCTAGGACTCA  
G

>non-DHS469

CATTTGGCTTTGCTAGGACTCAGCCGTGCTGCGAGGGAGGAGCAGCGTCTGGATCTG  
GATCTGAGAGGCCCAAAGCATAGGCCGTAGCTGCCTGAGAGCCCCTCATGCAAGGC  
AGTGCGCTCAGTCCCAGAGTGGCCGACAGATGCTCACAGGCACGCGCAGGCCGGCCC  
AGGGCAGCCCACGGATCTTGGAGGCTCCGTTTTCTCACCTCAAAAATATGCATTCTA  
CCCAGGAACTGTGGCCCTTATGTCCAT

>non-DHS470

CCCACCTTAGAGATGGGAATTGAGGCATAACACGTAGACGGCTGCCACTGTGGAGG  
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TTCTCACTGTTGTGAGCAGGGCTGTTCCCTTCCAGCAAGATGAACACCGGTGTAAGC  
GCGTCTTCGTGTCCTTCCATGGATGTTTGTAGAGGTGGAGCTACTGTGTCGAAAG

>non-DHS471

CTATCTCACCTCCATTGACCACACACGGGCATGGGTGCCACCTTCCACCTTGCACCT  
GCTGCCTTTACCTTCTGTTCTCTGTCTCCCTAAATATCTCCAGGGTCTCTGAGCC  
TTCACCGTTCAATTTCTCTGCCTGGCCTCAAACAGAAAACGTCAGGAGGGAAGCACAC  
AGCTGCACAGGTCGTGCCCGAGGCTCCTGCTGCCGGCACCTCCCCAGCCTGGACT  
TTGGCTGTGTTTGTAG

>non-DHS472

CCAGAAATCTTTCTTCTCCAAGTCCAGTGTTCCCTGTGCTCAGGGAATAGCCACC  
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CAGCAGAAAGTGACCTCCTCTGTTGGTTTACCAATTGCCACTGTGACTGAGGACCAT  
GGCTCAGTGCAGAAGCAGCCACTAGAAGCAGGTTGGCAATGGAGGAGAATGACCCTG  
TGGGTATC

>non-DHS473

CTGTGCTTCCTCCTCCTAGACTTTAAGGCCCTGAGAGAGGAAGGAAGGGGTGGGGAC  
AGGGGATGAGAATTCACAGTCCCATTCTCCTGCTACCATGAAAGGTTTCATCACCC  
AAGGCTGCTCAGGAAGTTTGGCCACAACTGCCGGAGATGTGGGTGAGACCGTGTA  
TCCAAGCCAACATAGTGAGCTCTTGAGCAGCTGCTAAGTCAGTGCCGAGAGCAGAAA  
TAGGAACCCAGC

>non-DHS474

GGAAAATGAGATTCTTTTGGCAGACAACCTTTTAAAGATCGCTCCTAGTAAGCACAGA  
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GGAAGAGGAAAACATGATCCGACTGTTTCAGTCTAGTTGTCCAGGGTCACTTCAGAGT  
GCTGTACAGCAGCAGTTTTGCATGCTTGTGATGTCTGTCTACATAACTGTGTGA

>non-DHS475

ACATTTTGGAAATGATCAGGGAGAGATCTTTTTTAGGAGCCCTTAGAAAGCAGACAGG  
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CTCCCTCCGGTTTCAACAACCCTTAAAGAGGCCCTGCCGTATTCTTTACTTATTGATTGT  
AAGTACTTTACTTATTGATTACTTACTTGTAAATTAGCACTAGACAGTGTGAGAAATA  
CAATCAAATTCCAGATATCCTCTGTCTTCAC

>non-DHS476

TTCCAGATATCCTCTGTCTTCACGCAAAGGCTGGAAAAGAACAGTTCTGTGTATTAG  
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 GCTAAACCTGACTTTGTTTTCAAAGGGGAACATGCACTGGAGTCTAATGAGTTGAGT  
 GGCACACACCATGGATGCCCTCTCCTGCTACAGGAAGCATCTGCATTGTTGATCATT  
 CAGTCATTATGTAGAGTACCATCATTGGGTGCTTTAC

>non-DHS477

TGTGTTTCCTGGAAGTAGAGGACTATTTGTCTCATAGCTTTTATTAAGCAAACCTTGA  
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 TGAATTCTACCCTAAAGTACAGATCATTGCAATATAACCCATAATAGTTAAAGCAA  
 ATCATAGTGCAGTTTGTATTGAATTTTCCTTATTTTTCCTTCAATGGAGTATATTC  
 TTTTCCTGTCATTTGAGATCAGTTTCT

>non-DHS478

TTACCAATAGTCCCACCACTCAAAAACAGCTCCTGTTTAAAATTTGGTCTACTTCCT  
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 GTTTTTATTTATATCAGAAAACATAATCATAGGTCATTAATAATTTTCATCATCTGT  
 ATCTAACTACCTAGAGAAAAACAGTGAACATTTTCAGTGTACATGCATCTCTTTCCTG  
 GTACACATATG

>non-DHS479

GGCTCAGTCTCAGAGATTTCTTCAACATGTAATTTTCTAATGTTTCCTTTCCTGCAA  
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 TTCTCCCCTCTTCCATTTGTTTAGCTATTGAGGGTTGCTTTAAAACAAATTTATGT  
 AGAAATATCAGTACTATAATAGTATTGTGATACTGTGTATTTCTTAAGCATATGCCA  
 GGAAGGAGAGCATT

>non-DHS480

CGGATTCTGTTGGAAACTAAGAGGGGAAATCCAGGAAGGCTTCCTGGTGGAGCTGAT  
 CTTTAAAGCTGAACCTTGAAGGACTGGTAAGATGAACGGATGTTCTGGAACCTGAGAA  
 ACACCCAAGTACCAGAGAGACAGCATCCATGTGTGAACTACTCTAGACAGAGGCAAC  
 AGGCGTGGTGGGGCCTGGGGCTCCTCAGAATGGCACCTCAAGTCCCATGGTGGTCA  
 GGGACTGGAAT

>non-DHS481

CTGTCACCACCATTTTATGCATTCAAAACTGTTATTTTATTTTATTTTATTTTATTTT  
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 AAAGAGGGAGGGCTGGACGGGAAGAGGGCTGCTAGGCCCGGTCAGAGAGGACTTCAG  
 GCAGGGAGCATGGAAGCTGTGGACAGGACAGCTTTTAGCTCTGGGAGCAGGTGCTGG  
 AGCCAAGTCACACACAGGTAGCAGTCA

>non-DHS482

CACACACAGGTAGCAGTCAGTGAGGTTACATCCAGGAACCTTTTTACAGAAACCCC  
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 AGGAAGGGGACAGAAGGGCCTAAGATCCCACCATGGAGAGAGAGGGAGGAGAGGGGA  
 GGGGGGCTTGTAGCATCAGCTTATCAGAAGGACCCCCTGGTGCACCAGAAGATTGTA  
 GTCCTGGGTGAACAAGA

>non-DHS483

CTGGGAAGTTATTTAAGGGGTCAGAAATGACTGACGTTAGACCCCTGAAGATTGAAAT  
CAGTGAAGTTGTCTCTATCCTGAGGTGTCTTCTGTGAGTGTGGAAAAGTCTGGGCACA  
AAGAAGGAACAGAGCATCAGCATTCTCCCCAGCCACCCAGCCGGGTTGTGAACAGA  
AGCACCAGTTTTGCCTCCTAAGTCTCTGTTTTTATTTGCTTTGAAGAAGCAGACAGG  
TGCCTTT

>non-DHS484

CTTTCCAGGTGAGAAATGAACACACACAGAGAGAAACATACGTACCTTCCTACCTT  
GCTCTCCTTCATTTTCATTTTCCTGTAGCCAATCCTGTAGGTGACTCCATTACCCAT  
TCTAATCAATATTTTATGTACATATATAATCACCCAGAGTGGGAGGCAGCGTGCTCG  
CCTGTGTGTGCCTGTGTACAAATGGGTCCATGACTGGACCAGCTGGAGACCCACGGC  
AAACAGTCCAGAGAGCAAGGG

>non-DHS485

GGCAAACAGTCCAGAGAGCAAGGGGGGCTATCTTCCCCACCGTCCGATGACCACTTT  
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ACGTAGGAAAAATGCCACATGGTAATTCAGAGTCAGTGACCCGGAGAAAAACAAAGG  
GGGAAATTAATTTTTAATGGTACATTTAAAAATAAATCAGAGTGAGGACATCAGTCT  
CGGTTTTCCAAG

>non-DHS486

GAACACACAAAATCAGTAGCATGGCCCCATTGTTGGGGTCTCACAGTTTAGCTCTAC  
AGATGTTCCCTGGATTATGAAATTCCCATGAGCAAACCTTCCCCTTAACAAATTGTTT  
TCAGAGGCACTGGATACAGTTTAAAGAGATGGGTAACAGTATACATTAAGTAGA  
CATAAAGCACTCTTGAGCATAGATGAAAACCAAAGAGAGGAGGCAGGAGCAGGAAGG  
AGGAGAATTTTTGCAT

>non-DHS487

ATGCTCATCTTTCTGTTGTGCGAAGTGATTTGTAAGGCTTTTGGGCTTCTGTGAAATG  
AAAGCAAAGAAATATATCCTTAAGCCCTTTCATCAATATATGGGAAATCTGACTTGT  
ATACGAAAAGAGTTATTGCTTCAAGTGGGGATGTGTCTGTACACAAAGGCATATAAC  
CAAGTGTACACACATAAACATGTAATCAAGTGACAAAAGTACATGAGGAATACCAAC  
TGGGAGAGG

>non-DHS488

CATGAGGAATACCAACTGGGAGAGGCCCATCTGCGGCAGTATGCTTCCTGAGTAGAG  
AGCCTGTAAGGCTGTGTGGCTACAGGGAGGAACTGAGTCTTGTATAAGGATGGTTGC  
GATTTACAACGGGGAAGGGAAAATGGGGGCTACTACTGGAGAAGGTCTGCCAAGGAT  
TTCGTAGACAGAGGAGCTAGTTTCAGGGATATGAATGGGCCCATTTTGATGCAAGA  
TCAATGTAGGCAAGCACCATAAAATCAGGGTAGA

>non-DHS489

AAGACCAGCTCTAGAGTCACCTCCAACCCCTTACCACCAGCCCCCTCTCCAAGTC  
TGTGTCCACAACCCCCCTGCTCCCTCCAGGGCACCCCTCCACCCTCTGGGCCACAGT  
TGTCAGGAGTCAGGCAGGGCAGGGGCCGGGTGGTGTCTTCTTTGTGTTCTTGCACTC  
AGGGCAGAGCTCAGCACAGAGCAGACGCTCAAAAAACATTTAAAGGATAGAAGCATT  
GATTTGTGGGT

>non-DHS490

CTCCTAGAAGCAAACGGACTTTTCTGGGAAATCCCAGAGGTGATGATCAGTATCTC

TCCCGTGA CT CGTAGTTCAGCTCTTCCTCCATGAGCCTGACTATCAGTGGACCTTCC  
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>non-DHS491

GTGCTTTGGACTTTTCAGTGTGTCTTCGCATCCACTCTTCAGCTTGAATGTTGCAAC  
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 GAAGGCAAAATAGAAGCTCAGAGAGGTCAAGCATTTTGCCCAAGACCACACAGCTAG  
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>non-DHS492

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 TAATGTTTATTGAGCCTAGTGCAGTGCTTGGGGCATTTTGCACATTGTCTCTGATCC  
 CTATCACAACCCTGAGAGGTAG

>non-DHS493

AAACACCCTAAACAACCTTCCCATCCCTTATTATTTTCATCAGTTGCTGTATATAATCA  
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 TACAAGAGTTTCATGATGAGTTTGATATTCAACTTACCAGGTGACTCTCGTTGGGC  
 TACTGGGTGAGCTTGAGGAAGTGAAGAGGTTGGTTGGATATAGTAAAAGCCACACTT  
 CTAAGCTGCCTAAGAATGGTGAGG

>non-DHS494

AAGTGGGAAAGCACAGTTTTAAGGAGCTTTTGAAGTAAGGGGCTGGAAAAAGATCAT  
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 TCTCCTGTTTCCCTTTTCAAATGTTACAGAACCAGGCTTTAGCAAAGATGGATATAT  
 TGGTGA CTGAGACAGAAGAACTGGCAGAGAATATACTCAAGTGGCGTAAACAACAAA  
 AC

>non-DHS495

CTCAAGTGGCGTAAACAACAAAACGAAGTTTCGTCTTGTATCCCCAAAATATTAGCT  
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 AAAGTTCATGTCCAACTATTAATGCCAAGTAGTCATCAACTTTATTTTTGCTTAAT  
 TATGTGTAGTCATATGAAGTCTATTTCTAGTTGACTGTAACATGGGTATTAATAGTC  
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>non-DHS496

TCTTTGCTGCTGGTAATACTGAAAGAACCTGCTTTATATTGGAGTATCAAGATCTCA  
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 TTCAGTAAAACCTAGAGAAGCTAAAAAATAGCCATGACAATTTATTAATATAAGTGAA  
 TTAACCATTTCTCAGGTGGGAAATTCTCTTTTTTTAAAAATGTGTGTTTATCGTCTG  
 GTGTGGTG

>non-DHS497

ATAATTGGGGAGCAACATTAGGAGGCCACCATTACAGTTGAGATGAGAGGGTATAAG  
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TCATCTACACTTAACAAGGGGAGC

>non-DHS498

ACCTCCTTGAAGGGACTTAACCTCACCTCTTTTTAAGTCCAGTTTCTCTTCTCTGTG  
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 ATGTGTCCCCAGCATCCCTTCTTCATATCAGGGTCTGGTCTTGCTTTTGTATCTTTG  
 CTGGCTGCTCTGATCTGGGGTGACCAACCATTCTGGTTTGCCTGGGACCAATGGGGC  
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>non-DHS499

ACTCAGTGCTAAAACCGAAAATCCAGGCAAACCTGGACCGTGTTGGTCATCCTATCCT  
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 TTAAACTCCCTGTTCCCTGATTGATGGTTGGGACTGTGACTGGGAGTTGCTTAAATAG  
 CTCCTCCCGTTTCT

>non-DHS500

TTAAATAGCTCCCTCCCGTTTCTCAGCTAAACTCAATTTCCACCATCAGCCCCCGCAG  
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 CATCTGCTCTGATGGGAGTAATCATAACACCAGGGTATCTTCCCTGCCTGACAGGGA  
 CAATGGGAGCTGAGTGGCTATCAGAAGAGGTCACGGTGAAGTGATGCTGACTGAGAG  
 GGT

>non-DHS501

GGTGAAGTGATGCTGACTGAGAGGGTGCTGATGGGGTGTTTTTGTGGGAAGGCAGAG  
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 CTGCTCTGAGGTTGCAGTGAAGCAGGGTTTGGGGATTGGCACCCAGCATGATGACTG  
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 CACTCACTCCCATTA

>non-DHS502

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 TGGATTTCTTGCTAGGGCCAGGTGAGTCTGGAAGACTTTGTGAAAGTGGAAGGGTTT  
 GTTCTTGACCTTGGCAAATGTCTAGGACTTGGCTACATGGCGAAGAGCAAGTAGGGA  
 AGCATTCC

>non-DHS503

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 TTTTGTATTAATTCAGTGCTCACAATGTGCAAAGCCCTGGTAAGATGCCAGGAGGTC  
 TTCATATACATATAAGGTGTGGCCCCGTTCAGAAAGAGTTAAAATCTAGACATGCT  
 CAAAAGGAACCAGCAATAAAGG

>non-DHS504

CACTGAACAAACCTAAGTCACAATGGGCTTTTTGTTTAAGTATTCAATTGTCAGGAAA  
 TCCAAATATTTATAATTCCTGGACAGTAATGAACAATGACAGACAAAACACTAGT  
 GAGTAAAAACACTAATTATGTTACTGTGGTCTTTGTGTGGCTTTGGCACAAAAGGTT  
 GTTTATTTACAATGCTGCAACATCACCTTGGTAATCAAAGAGTGGCATATGCG

>non-DHS505

GTGGCATAGAAGTGCAGCACACGGGGGTACAGCGAACCGCCATGGGGTCAAAGTCC

AGCACACGTAGGCCCTGCAGGCTGCGGGCCCGAGAAAGGGCCACATAGGCCTGGCCA  
CTGGCAAACACACGGCCCAGAGAAATCTCCACACAATCCAGGGTCATGCCCTGGGGG  
ATGCAGGGACAGAGATGGAGTCAGCTCAGCCTTAAGTCCCTTGCCCCGAAAGGCCTG  
ACCCTTTACCAGCCCTGCTACTG

>non-DHS506

CAGCTATCACAACCTGATTGCTTGAGCAGATATTTGGTTGGAATGACAGCCCCAAAC  
CTGTAAGCAGATCTTATTTTTTCCTTTTTTTTGGAGAGAAAGACAAAGAACAATTAAGC  
AGTTTTCAGAACTTTTTTTTTTCTAAAAAGCAGCTTTCATCATTTCTAAGTAAGGC  
ATAGACTGATAAGTCAACACATATTTGATTATCTGCTAGGTGTCACAGCGCTGGATG  
TACTGATTAAAGCTGTTCATG

>non-DHS507

ACATAGTTGTGTGATGGCTGTTCAATCAACACGTCTCCAGCACCTGGCACAGTGC  
CCTGCATTTACCTGGCACTCAATGTTTGGGGATGAATTAAGAAAGCTCTAAAAA  
ATACAAGATAATATGATGTTAAACGGACAATGCCTTTTTTTTATGTGACAACCATAAT  
TATCTACATATTAAGTATGACTTCTAGACATTTAAACAAAAAGCATAGTTTGGGGAC  
AACATAAATTAGAAAAATACTGTCTGA

>non-DHS508

GACAGTACATCCCTAGGTCCCTGTCCCAGCGTCGGCTACCAGCCACTCTAAGAAAGA  
GCAAGGTGCACGTGCCTGGCTGAAGGATTTCACTGGGAAGTGAAAGAGCCCGTGACT  
GTATCTGACACTCAGTTCCTGCCCGGTGAGTCAGCCACAAGGGCCTGCAGGACCT  
CCCTCCACAGCTTCCAGCCAGAAACAAAGAAGGATAGGGAAGCCCTGGTCAAGTTAA  
TGGCAGCTAAAACGCTC

>non-DHS509

AGATGCTTCAACGGATCACAAAGGAAGCCCGTGGGCCGAGGCTGCAATCCACACAAG  
CCAGCGTTCAACTCCGGACAGGGCCAGGGTCCTTGCTGGAGGAGAAGGGGCATGGA  
ATCTGGGCCCTATGGGCACTCAGCCGGGCGTGCGCCCTCTGGGGGCCCCCTGGACGC  
CACAGCAGTATGGCAGAGCTGTGTGTGTTTTACAGAGCCCTGTGACCAGTCTCCAT  
CTCTCAG

>non-DHS510

CTTCTGGAGCTAATGGGTTCTGAGAGAACCCTGAGTGGTTATTCTCACAGATGTGAC  
ACGGGGAAAACTGAGGTGAAGCTGCTTCCCTCCACACGCACAAGTAGGCAGCGGAG  
GGGCCCAAGAAAGAGCCAACAGGGCGGCCCTCTCTCCCTGACAGCCACCATAGCCAG  
CCTGGCCCCACCTCCGATAACTGCAGGGTACGCTGCTACAAATGACGTCTGCGTTT  
GAC

>non-DHS511

GTTTGACAAGGATGAGCAGAACCGGAGCGTGTGCGTCAATTCAAATCTGTGACACTG  
GCGCAAAATGTGAGAAATGGGCTGGGGTGCCAGGCGGCCAGTCACGGCTAGGGCACAG  
TTCCAAGAAGGGCCACAGGGGCCCCGAGGGACACTTACCCCAAGCCCTCCAGAAACA  
GCTGCTGCAGGTCAGCACCAGCACCAGGGCCAGGCACACAGTCTCATCGGCACGTCT  
GCCACTGGCTGTCTGCAAAGTGCTTCCCTTTC

>non-DHS512

CTCTCGGTTCCAGAATCCTTTGGCCTGACAGGCAACTACAGATACTTTTCGTGGACTC  
TGCTGAAACCTGTCTGAGACTATGGAGCTTTACGTGGCTAAGGAAGAGAAAAAATAT

GTTTGGAGTCCTTGCCCACTGACAGGTGCATAAAAAATACAAGATGGACTGGGCACAG  
 TGGCTCACGCCTATAAATCCAGCACTTTGGGAGGCCAAGGTGGGCGGACCACTTAAG  
 GTCAAGATTTGAGA

>non-DHS513

AAGATGGACAACGTTAAGGCTAGGAATTATAACCTTGCCGCTTAAAAATGAGCTGTG  
 CACAGGATAGGCGCTGCCAGCTCTGTGCGGTTACATGCAAGCTGCTGTGAGTGCA  
 TCTGCCCTCCCCAGGGCTCCTGCTGAACCAAGCTGGCGGGTGTGCGTGTGGTTTGC  
 AAAGCTATCACCTTTAGTCTGAGACCCACCATTGCCCCAGCGCTTTAGAGAAGCTGC  
 ACCGAGAG

>non-DHS514

GGACCCAGGCCTGACAGAGTCCCCGGCAGCTACAGAAGTGCATGCTCCCTCTCTGCA  
 CGGGCCACTTCTGGTACCTCTTGGTGTGAAGTAATTTAAGTCAGAACCCTTTTAT  
 TGCCCCAGGGGTGACCGGGAGGCCGTGGTCTCGGGGCTTTGTGTTTGCAGGAGTGTG  
 GGGCTGGGGCTGCCTTTTCCGCGTCCCCTGGAGGAGACCTCAGGCAGCCTCTGTAG

>non-DHS515

TATAAACAGGGATGCAATGCACAGCCTTTTAGTACATTTTGAGATACCTGTTGGATT  
 ATTTCCATCATGTTCTGGAATATAAATTCCTGGATTGAAGTGTGTGCAATCTGAAA  
 TTGTTGTGAATATTGCCAGGTTACCCTCCGTCTGCATGCCACCATCAAGGTATGAG  
 GATGGTAGAAGCTCTCGTGAACCAGATGGATGAAGACCACTAACGGCTTTTGT

>non-DHS516

AATAGCCCCTGGAGGTTTGAAGAGGCCCGTCAGAAACCCAAACAGAGCTGCCAGAC  
 GGAATGCCGCCCTCCCCGTCCACACTCATGGCCGCTGCTCAGCCCCAGCCGCAT  
 CCTCCCCACGCGCGTCACGGCCCTGAGGCCATGGTGGGTGGATGCGGCTGCGGAAA  
 GGCTGGGGAGTCCGAGCCCTAGGACTGGGAGCAGCGAGGTAGAGAATGAAAGCTGCA  
 CCTGTC

>non-DHS517

GCGTGATTGTATCTGAAAGGGTAAAGGAGGAGGAAAGCTGAGACGCCTGCTTGGTAG  
 CAGAGTTGGGTGTGGGAGTGTCCACAGACACCCTGTCTGCAGGGTGGGGAGTGGG  
 CACCTGTGGCCCCAGGCAGGTTCTTCCCACAGCTGCTGGGCTTCTGGGCCTGCCCT  
 GGTGCCTGGAATCACACATGACAGGGTGGGGAGGACAGGGGCAGTAATGCCATTTGC  
 CTGCCTGCATTCTCT

>non-DHS518

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 ACTATGAAACAGGAAAGTTCCCACGATCTTGCAATCCAGGCTGTAGTGGATTATAAC  
 AGCTACTGTTTGGGACTGCCCAAAGCGTCTCCTTTTGGTGCACCTTGATGCAGACATA  
 ACCAGT

>non-DHS519

GCACTTGATGCAGACATAACCAGTCATAGCATCTCATTACCCGGGGCAGAGGGATTT  
 ATATGCTTCAACCAAGACCAATCAGAGTCCTTCCCTTGGATAAATACGCGGCTGTTG  
 GAAAAAGCAACTGCAGTAGAAAAAGGGCTTTGAAGATGAAAAGTTGGGCGGCACCAG  
 CGAGGGCCCAGGCGGGAGATGCTGATGAGGCTGGGAGGACGCTGCTGAGCCCCTGTC  
 AGCCTGACAGCCAGCACATGAT

>non-DHS520

AGCACATGATGGCAATAGAGGAGCTCAAAGTGTGCCTTCTCGGGGACACTGGCGTAG  
 GGAAATCAAGCATTGTGTATCGATTTGCCCAGGATCACTTTGACCGCAACATAAGCC  
 CTACCATTGAGGTATCTTTTGTGACCAAACTGCGCCTTCTGGAAATGACCTTCA  
 AGTTCCTCATCTGGGACACTGCTGGCCAGGAACGGTTTCATTTCGTTGGCTCATGTGC  
 TAT

>non-DHS521

ATTTCGTTGGCTCATGTGCTATGGAGGATCGGCTGCAGCTGATACAGTGCATGATGTT  
 ACCCAAACAGGATTCATTTTCATACAGATGTTACCCAAACAGGATTCATTTTCATGCCT  
 TGAAGAAGTGGGATAAAGAGCTGAAAGAACATGGTCCAGAAAACATTGTAATGACTA  
 TTAAGTAAACAAGTGCATCTCTCAGATATTAGGGAGTTTCCCCTGAAGGATGCTGA  
 GGAATATGCTGAATCC

>non-DHS522

TGCTGAGTTTGGGGACCTTGGGCTGAGGCTGCACCAACTTTTTTCTTTTAAGAATT  
 TACAGTGCTGCTGTAACCTGCGTCAACCACAGTTTCTTTGACATTCTCTCTAAATGGG  
 TTTGGGGAATGCTGAAACTCCCTGTTCCCTCTTCTGCTATAATATCATGGCTGGGGAA  
 CAGGACTTTTATTCCAGCCTTCCACCTGTTTACCACCAACAGCTGTTGTCCCCAGTA  
 TGCTGCTGCTGCTCCTGT

>non-DHS523

CTGGCTCCTGTGTTCCCTCTATCCAGCCAATGCCTGTTTACACAGACACCTGGCCTC  
 ACTGCCAGCCCACCTCCCCTACAGCCCTGTTTGTTCCTGCTTCTCATGATTTTCCCTG  
 TAAATAAACACACTCTTAATTTGCCATTTGTGCCTTGCCTTACAAGCTCCAGCAG  
 CAGCCTTTCTCTTCTTCTGTTATCTATAGCCTGGGACCACCCCCTTCTCCCCTTGG  
 CCTGTGCTTTGCTTCCCTGTCTTCT

>non-DHS524

CATCTAGGGATGCTATGCCCTGTGGGCCCTATGCCCGGGGCACGGAGCTAGGGGAGG  
 CGGTCACCCTACTTCTCTCACGTCCCTGTCCACCTTGCCTCAGCGGAGCCTTAGG  
 TAAACAAGCCAGGCTCCCAGTCCCCAAGGACGGCCTTACCCCAGACCCAGGAGGA  
 GCGTCTTGGGCCATCTCGGGAAGGCTAGCTTGCTCGGGAGGGGCAGATCACGAAAA  
 CGGTTCTTTAGG

>non-DHS525

GCCTCAACTGCTCTCCCTGTGCAGGCAGTCGGCAGGCGGCTCGGGGTCTAGGGGTCC  
 AGGGCCGGCCGGCCAGTCGCTTGTGTGAGCAGAGTACCAGCTGCTTCTGGAAGTTG  
 GGGCCCTCCACATCATGAATCCCAGTCAAGGCTCACAGGCCAGCCCCTTGGAGGGGT  
 GGGCCGGGCAGAGAGCCCAGCAGGATGCTCGCCCTCAGCAGCCCCTTCTGGCTCTG  
 GACTCTG

>non-DHS526

TACAGCCTCTCATATCCATGCTTCGAGTCTTTCAAATGGAGCAGACCGAGGTTTCCC  
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 TAATGAAAGATCAAAGAAACCCCAAATTTCTACCAATCCCCAAAATATTGTTTCAAG  
 TTTTTCTTAATGTTATATATCTGATACATTTCTAAGGAGTCTGCATCCTCTACTCAA  
 CATTAAAGGACACGAGAAGGA

>non-DHS527

GAGGAGCGTAGGAACCTGGTCCGCAGCCTCACCCAGCCCCCGGCAGGCCGGACCTGA  
 GCTCCCCCGCGCTCGCGACGAGGAGGATCCCAGCCGCGGTTGGCTGCCCTGACGC



CCTCTAGGCCAGCAGGACCCGCCCGTTCCCGACCTTCCCTCGAGACCCGCCAAGAAA  
TAAAGGCGATGATTTCCGACCATGCTCGCGTTCTCCGCGGAGTCTGTGCTACACCGT  
GGAG

>non-DHS528

GTTCTTGGTGGTCTGCTCCTTCCAGCTGAATTCACCGGAGTGGGATAGGCCCTCAGC  
ACCATGCTTGGCACATGGGAAATGCTCACTAAATGCCAGCTGTGGCATCATAGAGAG  
GTCTCAGCATAGTCGCCTTTATCTCTATGCTCAGTAGGTAGAGAAGAAGCGAGGAGA  
GAAGAGTCTGAGGGGTGGGTGACTCCACCTGCCGTCTCCCTCCGTGGGTGGGTGTGA  
TGGAGTCATGGTTCC

>non-DHS529

TGCAAAGGGGAATGTAATCCTGGGGTGGGGGGAGACCCCTCATCTGTAGCCCTCC  
CTTGCTCCTCCCAAAGGGTGAATTAGAACAGGGACTGTTATTGGGAGACAGAAAGT  
GGGGGATAGTAGTTGACCTTTGGTAAGGGGGCAGGTGCCCAGGGCCAGAGGCTTCTG  
CTTCAGGCTGTAGTGGGCACTTGGCTGCCAGCCAGTGTGAAGGGGGGAGGATGGAG  
AGAAAGAGAGGCGGGGCT

>non-DHS530

CAAGACAGCTGTGTGCTTCTTTGTGGGAGCTAGGGGATGCTGGTTTCTGGGCTGAGC  
TGGGGAAAACAGGAGGTGGCGAGATGGGGGCGGGGAGGGGAGGCAAATAGATATGTA  
ACCTGCTAGGACAAAGAGGAGGTGAGGGACTCACAGAGGAAGCTGGGTGGTTCTAGA  
ACAACAGAGGTGTTACATTTCCAAAGGAGGTAGGGGAAGCAGATGCTATATGGTAA  
AATGAAGCTGCAGAGTTG

>non-DHS531

CTTGGCTAGAGGGATCATCATAGGAGTTGCATTGTTGGGAGACCTGGGTGTAGATGA  
TGGGGATGTTAGGACCATCCGAACCTCAAAGTTGAACGCCTAGGCAGAGGAGTGGAGC  
TTTGGGGAACCTTGAGCCGGCCTAAAGCGTACTTCTTTGCACATCCACCCGGTGCTG  
GGCGTAGGGAATCCCTGAAATAAAAGATGCACAAAGCATTGAGGTCTGAGACTTTTG  
GATCTCGAAACATTGAGAACTC

>non-DHS532

GTCCATGTGAATGTTGCAAACGCTTTCTTATAGGGACCAGTATTAAATCTTTGTGGT  
TTTACCCTGAGTCAGAACAATAAGAGCCTGGTTTATTTACTGACCACTTGCTTTGAC  
GCTCGTGAGAAGGCTGTTCTGTTGAAGTCGTAATGCTTTGCACCCAGTAGGAGCTCA  
ACAAATGCCTAATGAGCTGAACTCAATTGAGAAGGTCAAGGGGCTAAGCAAACATG

>non-DHS533

AGAACAGACTCCAACAACGTCCATCCAGCAACAGGTGGGGGTCTTGGGAGGGTTAT  
GCTAAAGGGCTGTGTTCACCCCACAGATGACTCTCAGGGGCCTGCCATGGCCCCCTC  
CCTCCTTGGTTTTTTCTCCCTTTTGTCTGCTGCCCCATCCACAGGCCCTGGAGGG  
CAGCAGGAAGGAGAAGGGCAGGGGTTGTGGCATGGCTGAGTGCACCCTCATTTCT

>non-DHS534

CTACACGCTGTGAATGTTGAAATGTTTCATCAGCTTGTCTTCTCTTCTGCAGCTTTGT  
GGGGGATGCAGTAGCCTCTCAGAGATGTGATATCCTCTGTTCTGACAATTTGTCCAA  
GGCCCTGAAAGTTCCCGATGTGTAGTCATTTGATTGAGGAGGGGGAGGAGCTGGAAT  
CTCAGCATGCAAGGCCACAGGCAGCAGAGAAGCCAGTGGTCACCATCTGCCATTGGT  
CTTGGTGTGGCTTTG

>non-DHS535

GACTCTCCTTCCCTTCTCCAGCTCCTCCAGCACCACCCTCAGCAGCCTCCAAGAACAG  
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 TCTTTCCTCCTTCCCTTCTCCCTCCTCCCTTCTGATCTTTACTCCGCCTGTGGGTCCC  
 TCCTCCTTACTCTCACCTCCCCAACTCCAAAAACACTCTGATTGCCAGACTGGGTCA  
 ATGGTTAACACTCAACTGGCTT

>non-DHS536

TGAAAGGCACGTGTGTACATAATCTCTTGCGTGTCTGTAAGGAAGGGGTGTATGCTC  
 AGTTTCCTATGTGCTGGAATAAAAGGTGTGTGCATGTGTGTGTGCGCATATGTGTGC  
 GCCTGCATGGATGTGAGGGGTGTGTGACGTGAGGCTATCTGAGGGGGGCTGTGTGCA  
 TGCACATGATCCTAGGTATGTATGTTGGACAGTGCACACGTGTGTGTTTACAGACAA  
 TACAACATGCCCTCTCTG

>non-DHS537

ACCCACTCAGCCATTCTCTACCCATCCTTAGTACATGCTCTGTCCAGCTTCCCCAG  
 GGTGACATACAGAAGGGGCAACATCTACCCGGGCACCAAACCTGAGCCCAATTCCGAA  
 GCAGTGTTTGGAAAAGCCCTTGCCCTCGGAAACTTGAACATGTCCTTTTTTCCCCAGT  
 CCCGGGTGCAGGAAGGGCCCCCTCCAGGTCACCACAATCTCACTCCTCCTCCAGAAA  
 GAA

>non-DHS538

CCTTAGTCGGGCGAATATTTAAAAGTAGAAGAAGGGGCCGGACACAGTGGCTCATGCC  
 TGTAAATCCCAGCACTTTGGGAGGCTGAGGTGGGTGGATCATGAGGTCAGGAGATCGA  
 GACCATCCTGGCTAACAAAGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGC  
 CGGGCGTGGTGGCGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAAT  
 GCGTGAACCTGGGAGGCGGAGCTTGGAGTAAGCCGAGATTG

>non-DHS539

AGCTTGGAGTAAGCCGAGATTGCCACTGCACTCCAGCCTGGGCGACAGAGTGAGACT  
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 ATTTTACCACAGCAGGGCTGAGGCCCTCCACTCCCATTGTTTGGTGCAAAACAACCTC  
 TATTTGGCTTTATCTACACTAAGGTTATTTTGTGTTGGTGGTTACAAAATGAATGACA  
 GCAGG

>non-DHS540

GGTGGTTACAAAATGAATGACAGCAGGTCTCTTCAAGAAGTCAGACTTGATCATCC  
 CATCTTACTTCCCTGGGTTTTTCAAATCATTGAATTCTGTCAATAGTTGGTTTTCTG  
 CCAACTATTGAATAAGATCATGATGGCTTTATGACACTCTCTCACATGGCTTTCAAG  
 GCACAGCGTGTCTGGTCTTCTACTCTTTTACCATTCTTTTTGTCTCCTCTACCCT  
 CTTCTTCCATTCGCAGGACTTCTCTAT

>non-DHS541

CCTCTACCCTCTTCTTCCATTCGCAGGACTTCTCTATATATTTTTTTAGATCTATGGC  
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 CCAAATCTATACCTCTAGCCCATTTTAATTCCAAACCTTATATTCAGCTGCCTCTTA  
 GATATTTGCCCTTGGATAAGAGACAGCTGGGTTTCATGGCCACCCATCACCCAAGCCA  
 GAAGCCTGAGGGCCCTCCATGATGTCACCTCCTTCC

>non-DHS542

ATGCTGCATGTGGTGACAAGTTGGGACCTGGGCCAGGCCGCGGGAACCTTTGCCTC

AGGCCTGGGTTAGCTGTAGGCTGGGCTGTCTTGGTTCCTGAGCCAGGTTCCAGCATT  
 TCCTGGTGGGAGAGTTTGGGACTGACACAGTGTGTCTCCAGAAGAGCGTGCCTTTT  
 CTCTCCCTCTGTCCAGGCAGAAGGGCAGATGCGGGCAACATCACCGAGGCTGTCCA  
 GCTGCCTCACCGAGGCTTCCGTGGTTTC

>non-DHS543

ATGTCACCCAGTATGATCTGGTAGGTGGGGAGGGGAAGGGAGGTGGAGAAGTGAA  
 CACGGGCCCTGAAACTTCAAACCTGGTCAGCCCAGGTCAGTACCTCATCGGAGCTG  
 CTAACAGTAAGAGCCTCTTTCTCTTGGTTACCATGACCACCAGCATCCCCACATT  
 AGAGGGGAAGATTTTGTTTAACAAGATTAGTGGTTCATTTTAAATCAACTTCAACT  
 ACAGAGGGCACTGTCTGAT

>non-DHS544

TTATGAAGGAGTGGGCTAGACTGGCGATGCCCGGGTGCCCTGGCAACACCCCTGG  
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 AGAGG

>non-DHS545

AGATGTTGTTTTGCTGTGTTGGCCAAGCTGATCTCGAACTTTTGGCCTCAAGTGATC  
 TGCCTACCTCAGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCATGCCTGGC  
 AGTGTGGCACTTCTTACGTGTGTTACGCGGACACTGTTTATCTTCTGTCCCTCCAAG  
 ACGGTGCTGAGCTCAGGTCGTTCACTACTGGCAGACAACCTGCTGATTTCCAACAGAA

>non-DHS546

CAACAGAATTGCCATCCTCTTCTCCCCTGCGACTTTCAGAGTGTGACCTCAGACTCA  
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 CCCCTCCCTGTCTTCTTGTGTTGTTCCCATCTAATGAACTATCATGGCAAAAAGAGCC  
 CATTTCTGGTCATTTTCTGTGGCCTTTCAAACCTCCCACCTACCCCACTGCTCCTGGG  
 TGCATTACCCGAAAGCTGAGACTTC

>non-DHS547

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 TTGTCTTCCCTGTGCTTGCCTGTACATTGTGTGGGTTCCAGCGCTGGAAGGAATGA  
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 CCTTCCCGGAAGTTGCCCTTGTCTCTCTCTCCAGGGCTGCCCCAGAGCTGCCT  
 CTCACCTTCTCCTGCTGTAC

>non-DHS548

AAGTTGGGACAAAGCCTCTCCTACTGGCTCCTGCTTTTCTCCCTTAGGTCCAGCCTC  
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 CGCATCAGTCCAGAATATGACTGCTTGTTCAGGTGCCACCTTTCTCATGATTTTTT  
 TCTAGTGACAATCACAGCCACCCTGTGGGGCAGGAGTGTATCATCCCCATGTTTC

>non-DHS549

GATATTGTTTGTGGTGGTGTGTGTGGGTGTGTGTTTTTCTTTTTCTTTCTTTTTA  
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 CTTTTGTCTTCATCACTTTCTGAAAATAAACATAAACTGTTGAATGTGCCTGCCTC  
 AGTGCCAGCATGGGGGACATGGATGGGGACTCAGTTGGGGTTGTACCCAAGCTGGT

GTACCCAAGGTGTTCTGTCAGCTTTCATT

>non-DHS550

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 AGAACGCAGGAGGGTCCCCGAGTCTTGAGCCTGCGGGCCGCGCGCGGCGCTTTACG  
 TACACGTGAGTAGGGGCGGGGCGGAGCCACGGTGTGTGGCCGCAGCCCTGGCCGT  
 GACCGTGGCCGTCCAAAACCCAGGTGGCGGTTTGTCACTCTAT

>non-DHS551

TAATGGTGACAATCCCTTTCTGTCTAACTATATGTACTTAAAATACTTTCAATCTCT  
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 GACGGGATCTGGCTCTGTCACCCAGGCTGGAGTGCAGTGGTGCAACCCAGGCTCACT  
 GCAACCTCTGCCTCCCGGGTTCAAGCCATCCTCACACCTCAGCCTCCCAAGCAGCTG  
 AACTACTGGCATACTCCACCATG

>non-DHS552

CAAGCAGCTGAACTACTGGCATACTCCACCATGCCTGGCTAATTTTGATATTTTTCG  
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 CTCCCAAAGTGTGGGATTACAGGCGTGAGCCACTGCAACCGGCCTAGATAGACATT  
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 CAATCAA

>non-DHS553

CTTCATCATAAATTTGGAGGGAAGCTCTTGGAGCTGTGAGTTCTCCCTGTACAGTGTT  
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 GTTACTTCATATTTGTTGCATTGCTTTTTTTTCTTCTTTTCATGTACACTGAATAAC  
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 CACACAGGCAT

>non-DHS554

CAGTCAGACCTGAGTGAGAAATCCATTGTTCCCTGATTTCCACAGGCCTTTGCTGAG  
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 CAGTGTCTTTAGGTCCCTCTGGGAGAGCTGGTAGAAGATTCTCAGTGTGAACTGTGG  
 TAGCATAACCAGG

>non-DHS555

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 CTCCTTATCTCACCTGCTGGGTGGGAAGCCCTGGGGGACCTTTGACTCTTCATTAA  
 CCTGAAGACTGGTGGGAAGGAATGGGTGGCCCCAAGGGAACCTTCATTGCTGAGGTAC  
 ACATGGTACGAAGGGAG

>non-DHS556

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 AGCAAATAATAAAAATTTAATTTTAAAAAAGAAAACGTAGGAGGTTGGTTTGGATGA  
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 CTTCT

>non-DHS557

CCACTCAGTTCTTCCCTCCACCTCCACCCAGTGATCCCAATAAACGAATTCTGTCTCC  
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 TTGCCTGCCTGGGAAACAGGCATCCTCGGAGGGCTGTGCCTCCTTGTGAGTGCGGGGCA  
 GGGATGCAGTGGCAGGTCATGGAAAG

>non-DHS558

CTAAATCAGAGCTGGCAGCCTTCAATTAGAAGGGGGTGCAGCATTCTCATCCGAGAG  
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 A

>non-DHS559

CAAAGCCACAAGAGAGAAAGGACTTAACCTCTGGCGACTTTGCAGATCAGAACCCCT  
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 GGAGCCTCGGGTACAGACACAACAAGGATGTCGCGTGCAGATGAGATATGGGGGTTT  
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 CTGTACA

>non-DHS560

GGCGCTCCTTTATCTGATGTGGTTTAGTAAAAGCCTCCCACACACCTCCCCGTGGCC  
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 ATTAAGGAGAGCTCAAGGGCGGACCGGGCCCTGTGTAGAGACCCTTCCGCGCCGGCG  
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>non-DHS561

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 AAAGGCAAGCAGTGAAACAGTGTGTTAACTACAGAGCCTCTATTTGGCCATTGGAA  
 ATTATTGAAATTGGTATACCACTCTAAAAATATGATCCTTAGAAAAGAGTTTTGTTG  
 GTCCTCATCAACC

>non-DHS562

GAGTTTTGTTGGTCCCTCATCAACCTGCTGTCATCTAAATATGACATTTGTACCTTGA  
 TAGGGTTGAGTCTGCATGTTGAAACTTAAACACCTCACTGAACAGGGAGCCAAATCAA  
 AATGTTAAGTCTTATTACATAAAGTAGACAGCTTTTTTAGCATTCTTTGATGGTTGA  
 CTGAAAGAATAGTGGACAGTCTATGCTTGCTTCTTTCAAAGTTCAGTTTGTCTTCT  
 ATAATGAGACACATGCATTCTCCAGAATCACTC

>non-DHS563

TGCTTCTGAAGTTTTAAGGTTCTCCAGCTAACAGTAAATGCACAATTGTTACCACAA  
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 AAATAGTCTCCACTGGTTATCTGGCACCTTTGTTACCATTTCTCCACAAACAACACT  
 CAACCAAAGGAATCTTCTGAGAGGGAGTATAGTATAATCAGAAGAACACGGACTGG  
 G

>non-DHS564

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 TGGCTATTCCTTGGCTTTTATCTTCTTCTCATCATGTCTAGAGCCAGGCCCCAGATA

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>non-DHS565

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CTTGAAGCTCTCTGGTGACATTTGGAAGTA

>non-DHS566

GAATTGAGTGTCTCACCTTATTCTGCCCAATTTTTTTTTCAGGATGGTTGAGTTCTGA  
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TGGAAGTGGCCACACCCCAAGTCTAACTTCAGCTGGCACCTGACATACTTTATGTAA  
CATTGTGACAACAGAAATAACTTGGCACCCCTCTTAGGATGAAAAGGAATCATGTAG  
GTCAGAGGCTGTC

>non-DHS567

TACTCCATTTGTCTTTTCCACCTCACTATGTAGGAAGCCTTTTTGGATCTCTACTTT  
TAGTATTTAATTAATAGATATGAGGATAATCTCTCTAGGGGTTCCAGTAGTTCCATC  
TCAAATATTTTCTTCCCTAGAGAGATTATCCTCATACTTATTGTATGGTGACTAGTT  
GGAAAGGCATTTGGCCATATTACCACCAATAGCAGAGTTCTCTAGCATAAATTCTGT  
AAACCAACCTGATCGGA

>non-DHS568

AAGCTGAAAGGCTACCACTACAGGTACATGTGATATGCAAGTGTATGCTATAGCTAT  
TCTCAGGCAGTTTTTCATGTTTCATGTGCATATTTTTCTCTTTCATAGTTTACTTTTTA  
TATGCCTGTTGTAGTGAATTTAGGCTTCTTAGACCTGAAATGAACAGAAGAAAGGAA  
GTATCACTGAGCTAAGGGAAGGGAGAAGAGGTAACCAGAAATATATATATGGCAATT  
ATTTAGGTTACTGCCTCAAAATTGGAAC

>non-DHS569

GAGGCTCTCCACCCCTCAACATGTTAAGGATACATCATTATGGAAATGGGAAGGAAT  
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CTGGGGGACAAGAACGTTAGAAAAATGGCATCTAATGAACTGGAGTGCAGTGGTGCG  
ATCACAGCTCACTGCAGCCTCAACCTCCTGGTCTGGTGCAAGCCTCCCGCCTCGGCC  
TGCTGGTGGTCTTGATGGTGGGGAAGGAAAAC

>non-DHS570

GGGAAGGAAAACCTATATGCGATTGAGGGGAGGATGAAAAGAACACCCATCACAGGAC  
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CCCAGCATCATTCCAGAGTCTAGCCCCGCCCTCCTGGTGCTGTCTTGTCCCAAGGCC  
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CTCTGCCTGACCTGTTCC

>non-DHS571

GGTCCTCTGCCTGACCTGTTCCCCAGCATGAACCTCCCCTACCATATGCCAGTTTG  
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GCTAACACTCTCGAGGACAGTCTAAAAAGGCTTTCTTTAATGATTAAGCCTGGGAGA  
GTTAAGACTGAAGGAAGGACTGGAAGAAGGAAAATGAGGATTTGGATGAGACTACAG  
GTGA

>non-DHS572

GGAAAATGAGGATTTGGATGAGACTACAGGTGAATTTCCCGCAGATGGAAGCGCTGG  
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CCGACTTGTAGTAAGTG

>non-DHS573

GTCAGCACACTGGCATAGAGGCAGCGCCGTGCTGTGGGGATGATCTGGCCCCCTCCG  
CGGTGGATGGCGTCGGCGTGCAGGGTGACGTCGTGGACGTCGAAGCGCACACCCCCGC  
ATGTTCTCCTCACACAGTGCGCCCTGGGGGAGGGGAGAGCCACCGTCAAGGGCCGG  
ACACACCTCGGCTGCTTGCCCTCCACCTGCCAAGTCTGCAGGTCTCCACCAGGGGG  
ACCTGGGGCCTTGCCCGCCTTGGCCCCATTAGGGTCTCT

>non-DHS574

AGAGTGACGAGAGGCTGCTACAAGCCGTGAAAACAACGATGCACCTCGGGTGGCCG  
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CGTGAGTGCCCGCGACCCGGGAGTGAGATGGCTGAGGGGTGGCAACCTTGCGGCTGA  
ACCCTTGTCTCTCACCTCCAGGTTCCACCTGGCGGCCATGCGGGGTGCGGCCAGCTG  
TCTGGAGGTGATGATAGCTCAT

>non-DHS575

GGGCCCTTGCTATAGAATTAAGGTGTCTCCCCACAAAAATCATATGTTGAAACCT  
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GAGCAGAGACCTCATGAACGGGATTAGTGTCTATAAAGGATCTCCAGAAAGCTCCCT  
TGCCCTTTCTGCCACGTGAGGACACAGGGAGAAGATGCCTTCCACGAACCAGAAGAT  
AGCCCTCACCAGACAC

>non-DHS576

CTAGTAGGGTCTGGGGTGGGTAGCTGTAATCTCAGCTCTGTAAGCGGGCCCTGCC  
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ACTTGTCCCTCTCTGCAAGGGAGGTTCTGACAGTGCACACATTTATCCTGACTGCTT  
TGCTAGGCAGGAGGCCAGGCCCTAGAAAGCAGCACGGGGCCAGGCCCTAGAAAGCAC  
ATCCCCATG

>non-DHS577

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GAACCCCTGACCCAGAGGGAGCATGCTGGAGTCAAAGTGGGCAAAGGGTTGTTACTT  
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GCCCTCTGCCCTCTGTTTTAGAGAC

>non-DHS578

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GGCCTCTTGTGTTAGTGTTTCAAGGCTGGGGACATGGGTGCCACCTCCATCAGGCCTCC  
CATAAGGATGCCAAGTCCCTGCACTCATAAGTGCCTCCCATCTCCCTGAGGGCTCT  
GCT

>non-DHS579

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ACAGAAAGATGCTTGATTTAGGAGGAAGCTTTCCTCCCTCCCTCCCCATTGCACC  
CCGGAACTCAGCAAAGGTGAGCCAG

>non-DHS580

CCTGAGGAGGAAGTGGATCATTAGTGAGGATGATGCAGTTTCTCCGAGGGCTGTCCC  
GGGAGCCCTCCCCTTGGGTCAATGTGAGCCCTGGACTTCCCTGGAGCAGGACACGGGA  
TTGGGGTGGGGTGGGAGGATCTGGGCACACGTGTGCAGCAGCCTCGGCCACACAG  
CCTCCGGGTGGACCTGCAGGGCCTGTTTGTGCTGTAGGCTTGACACGTCCAGGTAT  
CTCTGTGTGTCTGTG

>non-DHS581

CTGGTTTCTGGGACGACTGAAACCACGCAGAGCCACGGGTAACCAAGGTACCCGCAG  
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AGCGCTCCCTGCCGGAGCCCCGGAGACCAAGGTTTGGCTCCCTCGCCTGGTTTCCGA  
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GATCCCCTAGAAATTCCGCAG

>non-DHS582

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TTGTCACTAGGCAAATGTCCAAAAGCTTCTCAGCCGAAAGCTGGATTATTCAACAG  
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TGGC

>non-DHS583

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CCACCCTTGAAGAAGATTCCCTGAGACTTAATGACCTGGGGCACCCCGGACTTTCTT  
AATCGTAGCTCCACCCACTCGAGCCGGGTGCCTTCGCGTTTCCCGTTTTTAAATGAG  
ATAGTGGCACACCCG

>non-DHS584

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AGCCCTGGCCAGAAGCATCGCTCCCTTCAACCAACCGCGTTGATGGACACCCACTG  
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GGTTTTT

>non-DHS585

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ATCGTCTACTCAAGTAGAATGAGCACCATGAGGGCAGGGATTTTCTCAGCTGTGTCC  
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CCAGGTATGATTCTCCCAAACAACCCTT

>non-DHS586

ATGGCTCAGACCCTAGACAGAGTTCTATTTTTGTAAACCAGCCCTTCATGAAAATTTT  
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TGTTGAATGTCAATAATATACAGCATTTGAGCTTGATTTTTGAAACCTTAAAAAATC



ATTAAATGGCACTGCATCACTGTATCTTTTAGCCTTTTTGGAGGAATTAGATACTTA  
AATGTCTAAATGAATCTGCCCTTTATATTATGATGTACCCC

>non-DHS587

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TGCACTAAACTTGTTCCAGGGGCAAGCACAGCAAAGTATCTGCCAAGAAGGGGGGAT  
CCCAAAGAGAAAATTTATCAGCCTCAGTTTTGCGTGGGGTTAGCCTTGTTTACAAGG  
AATCCCAGGTATCCTGCCAATAGCATGGGATACATTGTTATGGG

>non-DHS588

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GGCTCCCGCCCCCTGGCGGGTCTCTGAAGGGCTCTTTGTGGCCACACAGAGGCCCA  
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GGAATCTGTGAGTAACCACCCT

>non-DHS589

AGACCATCGCCATCATTGAGACATCCCAGCCACTGGCGCTTGAGGACACCCTGCAGC  
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CCTTCGTGTGACGCAGCTGAAAAGCAACAACAAAAGGGTTTGGTTGCAACAGCCAGT  
GTGGGTACCTCTGGGGAGAGAGGACCTCCTCTGACAAACTGGTCTGGTACCCACCAT

>non-DHS590

AGTCTCACCTGTGTCCCTGTCTGGATCCTTCCCCAGTGTGGCCAGAAAAAACCAC  
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AGTAGGGAGGTGCGGAAGGGTATCAAGGAATAACACCCTATTGTGGGCTTGCGGAGA  
ATGGGGACTTCAAGGCGTGTGAGTTTCAGGAGGGTGAGGGCAGGAGCGTGGGTGGA  
GTCAGCAGGTCCCCATGAT

>non-DHS591

AGAAGAGGAAGAAGCAGAGTCAGGAAAGCCGGATGCCAGAGACAGTGCCCCAAGAGG  
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ACAAGAAGCGGAAGCAGCAGCAGCAGCAGCCTGTGTAGTCTGCCCCGGGAAACTGA  
GGAACTAAAGAAAGCTGAAGGTGCCACCTGGGCCACCAGAAGGTGACACCCCCAGA  
ATCCCTCCCCAGAGA

>non-DHS592

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ACTGTCCCCCAGATCGACACGCAGCTAGCCTCCTGCATTGTATGGTTATAAATAGCA  
CCCTAGTGAGTGCTGTCGTCCAGTCTCTCTTGGGTGTGGTTTGAATGATCTCGGGAT  
GCATGACTAAAATGGAATTACGATGGCAG

>non-DHS593

CTCAACACCGACTTGCAAAGAGAGCTTTGGGAAAGAGCCAGACACGGCGCAGAATCC  
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TGAGACTCAGTTTCCCTCGCCTGTAAAACAGGGCGTATTCAAGAGTCCAGGAGGATT  
GTGTAAGTAAAAGCCCACACTTAGTGCACAGCCCTGACAGGCTCAATCAGCGGTCA  
ACTTTGTC

>non-DHS594

GCTCCCTACCCTTGTTCTCAGTAGGAGAGCCAGCCAGAAGAATCCTTCTAAAAATTA  
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TGTCTTCCCCTTGCCCATTCACCTCCACTCACCTGGTCCTGCTGTTTCTCAACAGC  
TCCAGGCACGTCTGGCCATAGGGTGGTGGTCCTTGCCCTTCTGTCTGGAACATCATC  
TGATAGCCACACAG

>non-DHS595

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TGCTCCCATGGGCATGCACACATAAATAAACTTCTGTTTGCTGTGATTTTGTGAATC  
TGTCTTTCATGACCCCAATGTAC

>non-DHS596

TCTTTCATGACCCCAATGTACAAGCCTCCAGCCAATGAATCTAAGATCAATAAAGGG  
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CATGAGGACAACAATTTTTTGTGTATCTTTTGCTCACCAACGTATCCCCAGTGCCAA  
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>non-DHS597

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GAACAGGGACGCTGAACCCTGACACTCACATCTTGTCTATGAGGGCAAGGCACGCAC  
TGATCCAGGTGCTCACAGCT

>non-DHS598

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>non-DHS599

GAGAAACCAGCATTGTGTCCTGTGGGGCCCTGGGCAAGACCCCAGAAGCCCGCCAAT  
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GCCCTCATGCTCTTGTCCCTTCTTCTCCCAATGTCTTCCATCTCTTGGGTGACACTC  
CTGCCAGGACTTTGGATTCAACCCCTCCTTCCCCTCACCTGGCCTCCCAAGCACTTC  
TAGGCTTGCCCTTCCTAAACT

>non-DHS600

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CCAGCATGTTTCTGTGTGAAATCCAGATGCTATCTGAGTCTCTAACGAGACTTATGA  
ACCAGGATGAAGAGCATGTCTCTTTCCATAAATGAGGACGGTATGGTGGCCATTTAAC  
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>non-DHS601

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ACTGCCATGCCTTTCCAGACAAGTTGGCTCCTGATCCTGTGACCTATTGATCTGAAC  
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>non-DHS602

GGGTACTACTGATGAGTGCATGTGATGGAAGAAACCACTCAAGGTTAGAAAGTAAAC  
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 GCTTACACCAGCCAAAGTGGAAAAAATTCATATTTACCGAGGTATCAGTTAGAATAC  
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>non-DHS603

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 CCTGGGTCATCTGGTGGCTTGGGTCAATCTGGAGCAGAGCCAATGAATGGTAAGTAA  
 GGGGCTGGATCATTTAGGGGTTTGGGTCAATCTGGGGTAGGTTCAATGAATTCTCAG  
 ACCG

>non-DHS604

AGAGGGTAGAGCACAGGGGTTTCCCCATACTACCTCCCCTCCCAGGACACTCCCAG  
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 AAGAGATTGGATCCCAACCTGTTCTGAGATGGGATGGTTTTGTGTTTTCTCATGAAGA  
 TATCCCGGCCCTCTGCCAACCAAAAAGCTGGTCTAGGGTGCCTAATACTGATCCAT  
 CTGGACC

>non-DHS605

AGGGATCCTGAAGAGAAAAGTCAACACAACAGACAAACAGACAAAGAACAGACAGAC  
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>non-DHS606

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 GCACTTAGGTGGCGGGCGGGTACTTAAGGCGCGGCCACCGCGGCTGCGGCAGTGCGC  
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>non-DHS607

GCACAAAACCTTTGTCTCTTGTGATTTCTTTAGCGGCATCAACATACACTTCTAAGA  
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 CTGTCTGTGATAAAGGACCATCTCCCCCTCTCCCCAAAGAGAAAGGCTGACATCTT  
 CA

>non-DHS608

GGGAGACAGCAGGGAATAGAGAAGCCAAGAAAGAAATAGTTCCAGCAGAAATGAATG  
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 ATTTGAGGAAGTGACTTTAAGTCTGAGACAGGACATTCAGGCAGAGGGAAGAAGGA  
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TTTGGATTTTATCCTC

>non-DHS609

AAACATACCAGGGCATTCTTCAACATCAGGGCAGCTGAGCCTGGCACCCTCCAGCT  
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GTCCTGGAGCAGAGTGTCTGCAGCTAAAGTTATTGAATTTTCACTAAAACCTCAATA  
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>non-DHS610

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AAAATTGTTCTGAATACAAGCCTATGCGTGATCTTGTGTGTGTCAGGCCTGTGTTTTC  
TGAGAAAGCCCTCCCATTTATCCGGGGCAGAATTCAGGGGCAGAGTTCTCTGTGAACC  
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>non-DHS611

ACAGACAAGGCCTGTGCTAAAACATGACACATACAGAGCACTACAAAGAAAAGATCA  
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TTAGGGACTGCTGTATGACCCGTGCC TAGCATGCAGTAGATGATCAATAAATACTTG  
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GTTCTTTGGAGCATC

>non-DHS612

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TCTGACAAAGTTATAATGTATTATTATTCAATTCCAGAAAAGAACAATTAGCGACTG  
GTGGTAGCT

>non-DHS613

GTCATTCCCTATTCCGTCACTGTTTCGTGGTCAGCACGGCACTTTTCATACCCAAAA  
TCACTGTTTCAACTAGAAAGGGAACTGCATGAGGACAGGCTCTTGTGAGTTTCGCT  
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ATTTTCCTTTCACTGCGTCCCTCAT

>non-DHS614

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TCGGGGCCTGGGGAACCGCGCGGTTTGGAGATCGGAGGCACCTGGAACCCGTGGCA  
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G

>non-DHS615

CTGAGTGTGGAGCGCTACCTGGCCATCTGCCACCCCTTCAAGGCCAAGACCCTCATG  
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GCGGTGCCTATGCTGTTACCATGGGCGAGCAGAACC GCAGCGCCGACGGCCAGCAC  
GCCGGCGGCCTGGTGTGCACCCCCACCATCCACACTGCCACCGTCAAGGTCGT CATA  
CAGGTG

>non-DHS616

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>non-DHS617

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>non-DHS618

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 GGTGTAGTAGAAGTATTACCCTGTAGAGTTTGGCAACCGTTACAAATCATGGCTT  
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>non-DHS619

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 CCTTTATAAGAAAGAAATGACGTATCACAATAACTAGCTCTTTTAGGATTGTGTCA  
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>non-DHS620

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 ACAAACCACACCCTCCTTCCCTCCTTTCTAATGTGCAGGGTATTTATGGAGGAAAG  
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>non-DHS621

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>non-DHS622

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 TT

>non-DHS623

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>non-DHS624

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>non-DHS625

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>non-DHS626

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>non-DHS627

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AACTCGCTTCTTGTATCCATTTCTGGTTAGTCTTAAGTATCTTCTTGAGGACATTGT  
CTAAAAGCAGCTGCATGCCATTGACATTCAGACAGAACAGGGCCCCTTGGCCTTAG  
AAGGTGTAGGGCCTTAAATATTCTGAAGGTGACTTCATGGAGTGGCCGCCCTCTGT  
GGTCACCCTACCTGTGC

>non-DHS628

TTCCATCTGGAAACTCTTGCACGCGTTTGCACCTGGGAGATGAAGTGGTCCCTGTTGG  
CTCAAGCTGCAGTGAGAGGGTGGTGGGGGTAGACTCAGTCCCTTGCCGGGGTTGGCC  
AAAGCAGGCTTCTCCTCCTCCCTCAGGTGTGTGTTATCGGAGGTTTCATTCCTGGA  
AAATCCAGTGTCTATGAAACCAACATACATGGCGTTTGCATCACAGTTGGAGTCAGA  
TGTGA

>non-DHS629

CTCTTCGCAGATAAAGCTCCTGGCACCCGTTCCATGCTCCTCGGGTTTGTCTTTAT  
TTTAAATCCTTTAAAGTAAAATCTCTGTCTCTCCTCCGTCTTTCTCTCTCTCA  
TTATCAACTTTTCTGCTCTCAGAAGCCCTTTTGATCTGGAGCCTTGAGATGCTCTGT  
CACTTAGAGACAAGCCCCCTGCTTCTCTTTTGGACTTCTGTCCCTTCCCTGTCCGTCC  
TCTCC

>non-DHS630

AGAAGCTCAGGAGGACTCAGGACCTGGCAATGCCAAGAAAATGACCCCTCCTCCAG  
GAAGGCCACTGGGCTTCCACTCAGGTGGGGAGGCTGGGTGACCAGTCCCTGGGACGT  
GAGCTGAGGCCAGAAGACATGCTGGCAGGGATCGGGCCCTTGAGCATTCTGTTGGGGC  
AGAGTGGGGCGCCTGATAAAGGGGGTCTCTGAGCTGGTGGGAGGGGGCCCTGGAGA  
GCTGGGTGGGGTGGGGGACTCAGAGTC

>non-DHS631

CTGGCGAGAAAATGCAGATGCCAGGCTCCTGGGAGGCGTTCTGGTGGGAAAATGCA

GCTAGTCCCCTCACTACGACTGCAGCTTCACTCACCCACTGTGTGCGGAGCCGGGTCT  
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 GTTGAAGCTGCACACAGGGGTATGACGAGGGACGGGGGGCAATGGCCCTCCGTTAC  
 AATTTCCCCGACTGAC

>non-DHS632

GTTACAATTTCCCCGACTGACACCGTCAGCTTCTAGTAATAAACACCGACTTCCT  
 GGTCTTGATAATCCCTCTGGTTCCAGGAATGCAGACCGGTTTCAGCTCCACACAGCT  
 ACCAGACCACAAAAGACCCCCGAGGGGTGTCACCAGGGGAGAAGACAGCTTCGCC  
 TCAGTGCCCTGCCGAGTACTGCAAGCCCCTTGGGTGTCACCACAGCCATGTGTAAAT  
 AACAGAAAGCACAGGCGC

>non-DHS633

TCACCACAGCCATGTGTAAATAACAGAAAGCACAGGCGCCAGGTCCCCTGCCGCC  
 ACCCTGGAGCCTCTGTAGGTCCCTAGAACCCTAAGCCCAGCGTGTAAACAGACGCA  
 CGCTGACTCACTCCTGCCTCCTTGCTGGCTCACCCAAAACCGTCTAATTTTCTGAGG  
 ACAGAACTGGAAGGAGGAGACAGAACTAGAAGGAGACAGAACTGGAAGGAGGAGAC

>non-DHS634

AACAGAATGCCTGTGTCTGGTGGCTGCCTGCTAGCTCAGGCTGCCTGAACCAACAGG  
 TGCCGATACCAAACCTCCCCAGGGACGGCTGACCCTGGGCTTCACTGTGGCAGG  
 AGGACAGAAGGAAGAAGTCTCCAAGGGACCAAGCCACCCAACGAGAGAACAAGGTCC  
 TTTTCTTGGAGCACAGAAGTTCATGGCAAAGTGTGGTCTGCCTAAAATACATGC  
 TGTGT

>non-DHS635

GAAAGACTGAGCGAGACAGCACTGCCTCAGCACAGCCCAGGATGCATCGATGACCCT  
 GGAAGAGTGGGCCCCCAGTGACCCGTGAAGTTCATGTGCCACCCTCACCTGCAGAC  
 GCTTGGCCACATACACACACAGAGACACAAACATACAAAGGAAAGATCCAGACATTC  
 AACGTAGAAAAGATATGGATGTGCTAAAAATCGCACAGAACCCGCTTAATCTCCAAA  
 CCTCAGAAATGTTAAAGGC

>non-DHS636

CTTCGGCTGCTTGGAGCTAGTGAGCCACCGGCCACGGCAGGGATTTGAGCAGAACTT  
 GGGGGCAGAGGGATGAGATGGTGCATCCCTTGAGGTCACTTCAGGAGATGACACTCC  
 TGTGGCTAAGTGTAGCTTCCCAGGTCATGGCTCCCAGGTCAGGCCTGGTCAATGGAG  
 AATTAAGTGGGCGTTGGGTGGTGGATGGATGTGATTTGGCAGAGGGGACAAATGTGA  
 CAACAGTGTAATAAGGGCCATG

>non-DHS637

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 AAGGCCACAGCTCCGGTGA CTCTCATTCTCTTCTGCCTTATTTTCACTCTCCACA  
 GCTGGGTTTCAGCAAGCATCCCGCTCATCCTCCTATCCTAACACCCTCTTGACCCGA  
 TGTCCCTGCTAGCTACCTCCCATTTTTTCTACTTCTTTTTGCAGCAAAAACCTCTCA  
 CAACAACCATTTCCATTC

>non-DHS638

ATTCCTCTCCCTGTTCTCTCCAGCCACCATCAGGCTGAGTCTCTCCCAAGCTCCAGG  
 TCACAAGCAGCCCCCTGGCCCTGCCATCCTGCTGTCTGCTCAGCAGCAGGCCCTGTC  
 CCTGCTGACCGGCCCTCCTCTCCAGTGCATCCAGGAGCCAGCACACTCTCTGGGTT  
 TTCTTCCCACTGTACTGGCTGCTCCTGCTCCCCTCCTCAGCCCACCCCTGTTGGGCA

GTCTGGTCTTTTCACCTACAC

>non-DHS639

GCAGTCTGGTCTTTTCACCTACTCATCCCCAGGGGACTGCAGGCAAACATAGATG  
GATGTGGATCACCTATATGTCAGCAACTCCAGGTTCACTGCTCTAGCTAGGCCCTC  
CTCTGTGGAGCTCCAGATCTGTCTCCAGCTGCCTACATGATGCCCCACCTGAACAT  
CCAGCGGGCAGCTCAAGACTTAGCACCATGTGTCCAAAAAGTAATTCTTGTCTTCC  
CTCCCGTGTGCACCTTCAGTCTTCCCCTCATCCACT

>non-DHS640

CCCTCATCCACTGGTGATAACTCCGTTATTTCTACTTATTCAAGCCAAAACCAAATG  
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GCTGCTCATTCAAAGCACACACCCAATCCTGATGGCCTGATCACCTCTCACCTGTG  
ACCACCACCCTAGTCAGAGTCACTGTCCCTTCTCGCCTAGACCACTGCAACAGCCTC  
CAGCTGCTCTTCTGGCTCCTGTCCCTACT

>non-DHS641

GGTGATGCTGGTCTCCAAGTCCAGTCCAGCGTCCACACCTTTAGGCTGCGGTC  
ATCAGCTTGAGAAGCTATGTATTTACCAACAGGGTCCCATGTCAACCCTTTGACCAA  
GCCAGAATGACCTCTCAGAGTAGCTAGAATTTCTGTGAAGAAAAAGGAATGTGGAG  
AGGTGTTGTCTGAGGGAAACATGACCTGCAATCCATGGGCCATGGGATGGATATGCA  
AGAGAGGGGACTCAG

>non-DHS642

CCATTTAGTCTTTCACACCAGATGTGATGGTGTCCAGGAAGAAGAGGCCATCTCTT  
CCCATGGCTCTCTTCGTCAATAGAGGTACATTCTAGAAGCCCCGTGGTAGGCTTCC  
CTATGGCTTGCACAGGACTGAATCACAGAACTGTGTCTCAGCAGTCACTGGCAGGG  
GACAGGGGTACCCGAACTGGGTGGAGGCCGAACTGACACCCCTGAGCTGTGCTA  
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>non-DHS643

GGCTCCTGAACAGAATTGAGATTGAGGCCACAGGGCCAGGCTGACTCCCTCCTGCCC  
CACGTGCTCTCCGGTGAGACCCTGCTTGGTCTGCAAAGCCGAGCTCGATGCCCTCCC  
TACCTCTTCTCTCCTAGGCCTCATCCACGGCCTTGTCTTGGGCCAGACAGCCATGTG  
CCATGTCTGTCTCCCATGCAGCATCTGCACCGTGGGGGTGGGGGGGAGATTCTCT  
GCCACGTTTACAGC

>non-DHS644

AGATTCTCTGCCACGTTTACGACCTCAAAGGCAGGGGGTGCATTTCACTCAGCTCTG  
CATCCTGTGCACCCTCAGCCATGCCGGCAGAGCATGTGTGGGAAGGGCCCGAGGGA  
CCCCAGGGAAGGAAGAGCACTGTGTCTGCATCCAGAAGAAAGTTCTGAAAAAATGG  
GAACCTCTGTGACTACAATGAACTTGTAACAAAAGCAATGACTTTGCTCTTCCAGGA  
GGC

>non-DHS645

CTTGCTGGTTGGGAAGTCTTAGAGGGAGGACTGGGTGGCACGCTGGCACTGTCTTGC  
CAAGAGGGCCACACGCAGCTGCTCACCAGGCGAGAGGGGGCAGGACTCACTCAAGAC  
GGCCTGCAGCTGAATGGCTGTGAAGATCCCTGGCTGCAGAACGAGCCCTTTCGGCAA  
GAGCCCCGGGGAGGGGACAGAGTAACTCCTTTGCCCTGCAAGGCCCCCGCTTGGGTCT  
CCCCAGGTTTACAGCTCC

>non-DHS646



GGCCTCCAGCTTCTAATGTTCTAATGTGCAGGGGCTTGGCCTGACCAGTCCTACCCT  
 GGAACCTTTCCAGGCCCATGTCCTGCTCCGCTGGGCTTGCCTGTTGGGATTCTACT  
 GGGGTCATGGAGGTGGGTGGCCACAGAGCGGAGCTCGGGAGACCCCGCAGTCCCT  
 GGAGTAGCCACATGGGAGGGAGGCCCGGCTGGCAGGAGCTCCAGTCCCTCCAATCC  
 TGTGGGTCAGAG

>non-DHS647

GAGTGTGAGACCCCATTTTTCTGTGAGGCGGGCCGAGTCTTCCCTTATCCCCAGAC  
 GCCTAGCGGGCAGGGTTGGGCTGAATCAAATGGGAGCCCTCCAGACATAAGGAGGCC  
 AGAGGCTGCAAGGAGCGGGTTCGTGACCGCTTACACCCCTTCTCCACAGCCCGGCC  
 GACCTGGAGGGCCCCCGGGCACTGGGCGGTGAGCCACCTCCTGGCAACTCTCGGT

>non-DHS648

GTGCAGATGTACACAGGACACAAGCTTGGGCATACCCTCAGGCTGGGGCACATGCAG  
 GAGCCCCACCCCATGCCCCACCGACTGGCCCAGGCCTCTCTGGGTGCAGACTGCC  
 AACACAGGCACGTCTCCTGCAACACTACCAAATCTGCGGCCACCAGCATCCCTACCA  
 CCCGCCCTCCACGGGACTGTCTTTCCTGCAGGAGCAGCTCCTGGGGACAATGGCTGGT  
 CCTGCTCAGAGAGGAAGGAAAGGG

>non-DHS649

GACATAAGTCATTGTCACTGTTCATGGCCCAGAATGACTACTCAGGGCAAGAAAAATG  
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 AGGGGTTGTGGGGGGCAGGACATGAGGCACCCCATACAGGCAGCAACACACACCACA  
 TCCCAGACAGGCAGCACTATTCGTATACTCACCCACTGCGGCCCTGGACTCACATGC  
 GTTCCTGAACCTCAG

>non-DHS650

CCGGAGGATGCACTATTAGACCACGAGGCGAGGGGCTCTGGCACAGGCATCCCTGG  
 GGCAGAGGCCAGGAGCCCTTGCCAGTTTCTTCCCTCCCCAGAAGAGGTCACGATGAAC  
 AACATGCCCCCGGTCAGCCTGGCTCTGCAGAGCTGGAACAGAACCAGATGTGCAGG  
 GCAGGCTGGGCAGGGCCGGCCATCACAGGGCAGCGTCTCCACCTTCTGGGAGAT

>non-DHS651

GCAGCTCAGCTCTCTGTGCTTTTTGGTGTGCAAACATTTTCCAAAGAGGCATAATAA  
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 GGGAGGAAGCAGAAACAAAAGCATTAAATTCAGGCCACGAAGCCTAGGCTTAAAGAG  
 CAATCCATCTGCCTCTTGAGCTTGAAGGCCTGCTCTCCAGAGGGAATACTCACACAA  
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>non-DHS652

AGGATGTGTTACCGGGCTCACGGAGTGAAGTCAAGGAACTAGTGCCGCCCCAGGGCCC  
 CAAGGTGGGCGGTTCCGGTATTCAGAGAGGGCAGCTCTGTGTTAGGACACACTGGGG  
 CCAGCCAGGAAGGGTGAAAAGATAGGGACCAGCGTGAGCATAGAGGCTAAGGGACC  
 ATGGGAGCTCCAAGCGCGCTCACAGTGGGGACCAGGTCCTGGGGGCTGGGGACACCA  
 GGGAGGTGAAATAC

>non-DHS653

CTGAGTAGCTGGTAGGAGGCTTGCAGTGTGCGGGCGACAGGCAGGACAGGTGCTGCCT  
 TCTTTCCCTCTTGACCAGTTTCGTAAAGGAGTGGGCCCTGGCAGCCTCCAAAGGT  
 GACCCATGCTCCTTTCTGCCCTTCCCTCCTTCTTTCTGTTAACTCGTGCAGGTGC  
 AGTGGTCTGGTGTCTTTTCAGTCCGCTGACGTCTTCTGTATCCCTGATGACCAGA

>non-DHS654

AAATTTAGCAGGATTGAGGGTCAGAACTTGTCTCCAGGAGGAACCTTGGTGAGAA  
GGTCCTTGTGTTTATGCTGAAAAGCCTGACAGGGCAGCTCAGCCAAGAGCTGGGCAG  
GGGCTGGCTTGGCTGTGCTCAACTACCCTCTCAGCTGGGACTTGAGTCCCTTAGCGA  
ATGTTCTGTGCCAGTCCTCTGCTGGGCGCTGGTGGACCCCAGAATGGGGGTAGGGT  
GGGGACAGGGGACAGCTGGGAGCAGACATTG

>non-DHS655

ATTAAGAGCACCTGACATGAGTGGGACCATGACCCTCCGCCAGCTCTGCGTAACCTT  
GTGGTGTAGGGGGGAACCAGCAGGGATGCTGCCAGTGGGCTTTTCTAGGGGGAGGT  
CCTGAGATGACTTCTTAGCCAGTGACCCTGGCTCACGCATGCTGTCATCCTTTTCCTG  
CCCTGGATGCACCTGGAGATGACCAGTTCCCTCGGCTCATTGCATTCTCCAAGGCCG  
CTGGGGAACCAAACCTGCCACAACCATGCTTAT

>non-DHS656

CATCTGTGTAGCCAGCAGTGTCTTGTGCCCATCATGGGCCCTTGGTAGACAGGGAAA  
GTGGCAGTGGGTAGAGGCTGGCTTCTGGGTAAGGTGTCGAAGAGGCTGTGGGCTGGG  
TCGGGGCGGGGTGTGAAGGGGGCATGCAGGGGGCTTGGCATCCGCTGTGGCAGGCTG  
CAGTAGACGAGACCCCCCCCCAGCTCCAGTTCAGATAGTGACGTGTAGGGGTATCC  
TG

>non-DHS657

AAGTCAGCATGGGGTTCAGGCCCCGCCTGCCTGATGGGCGAACACACCCCCAAGGCC  
CCCGTTAGGGCCAGGAGGCAGGCTGGCAGCCAGCGCAGGTGCAGAGGGGGCCCCGAGG  
CTTCCATCCTGAGGTCAGCACTGGGAGGACAGAGGCTGCCTCCTTGCAGCCCCGAGGG  
TTGACCAATGGCACTCGCCGCATCCCTTCCCAGAGCAGGCCAGCCCCACGGGCATCA  
TGAGGGCCTGCGTTTGGTTTAATGCTCCGCT

>non-DHS658

CTCCCATCTTCCCAGCTTATAGACCTGAATATCCAGGTTGAGAATAAACCATTTCTCC  
CAGGGCACCATAGCCTCCAGGAAGCACCTCCTCCTTCCACCATCCGCCTTTCAGGAG  
GGGCCTCCCTGGGGGGCTGTCTCTGGGACTGCAGAGGCTGCTTGGTGTATCTGGGGC  
TCTGACATGAGTGAGATTGTTCCGGGGCCTGTGCTGCCAGCCTCTTCCCCAACAGC  
TTCCT

>non-DHS659

TTCCTACTTCTGGCTGTGTGATTTGCGACACGTTACCCACGCACCTGTACCACAAC  
TTCCTCATCTCCCAAATGGGATGACAGTAGTTAGCAAACCTCCCTGGACTGCTGTGA  
GCATTCTGCCAGAAAAATGTACTCCAAGCTCTTGAAGTAGGCCTGGCGTTTGGTTGG  
TGCTCAGTACATATTCAATGTTTCTGTGCTGGCGTCATCACTGTGTTTCATGGCAGA  
G

>non-DHS660

GAAGTGTGGACAGGACCCTCTGGGGGGACTAGGCCAAGGCTCTCCACCTCTGGGGA  
CCCGCGCCCATGGGCCTCAGATATGTGGCTCGAGAAGGGGGAGTGGGGGCAGGGCCC  
CTGAAAACCCCTCGAGGCCAGACCACCCTCCCAATATCCGTAAGACCAGGGGCT  
TGAGTCTTTCTGCAGACAGATGTGGGCAGGAACCCACCCGACTCCAGCTACGTGG  
GGACGTGGACGAACTAACAGGACAAATTC

>non-DHS661

ACATGAACATGAACTCAGTCAGCATCTAGCTCATGGCTGCTGGAAATAGTTGGCAAT

CTCTCTCTCTCCAACACAGCTCCATCTTTTCAGCATGAAGGGTAGGGAGATTTCTCAC  
ATGCACCAAGGTAAGGTGGAGGGGTCCCTGGAAATCTAATGGTAGCTGAGTCTTGTG  
GGCCTGAACCACTGTCCCTTGCTCTGCCAGAAATGGATTTGTGAGATCACAGCCTA  
AGTGA CTGATGGA

>non-DHS662

GGCCAACAAGGGCTAAATTCTATCCCCCCCCCTCAAAAAACAATAACGATTTTG  
GGAGTATTAGAGCAGAAAACGTTTGA AACATGAACAGCTCTCACATCAACACAAGA  
CATGAAACTCTGTTGGCAAGAGAGGCCTCTTTGGGGAGAGTGCTCACTCCTCTCCA  
CCCCTCTCTACCACCTTCAACCTCCTGTCTGGGGCACAGTAACAAGGGGTGTAAGG  
GGTGTAC

>non-DHS663

GTAGA ACCCAGAAAGTGGAGAGGAACAGAAGTAAGAGAACCATTCCATGAGAGAGAA  
GGTCTGGTGTCTTTCTGGTTGTTCCCATAGTCAAGGTCATGCTATCCTGGGGTTT  
TTTGTGCAGCATCTTCCACATCAATAGGGGATGAAATGTTCTCTTTAATTAGAAAG  
CCCTGGTCGGCACCAAGGAACTCTTGT CATACCCCTCTGTGAATGTCTCTTGCCATC  
CTCAGTTA

>non-DHS664

GACATGGTAAGTAAGTGCCAGTGCAGGGAACAAATTCAGGTCCGACTCTAAAATCTG  
TCTCTTTCCAGATCTCAAGGCACACCACTGAGTTGCCTTTCACCTTCTCCCAAGAT  
GAGGATTGCTCTGGCATGACTTCACCTTCTCTTCTGAAGCAATCCGAGTTCACTT  
CTCTGCCACTGACAGTTCACTCTCTTTCCCTGCCACTGTCCCTTCTGCAAACGCA  
CAATCTTTTACC

>non-DHS665

GGTGTAGGGTGTGGAGAGTGA CTACGCAGAAGGGAGGGACAGGGGAGTGGACACAGG  
CTTCCGTCCTGT CAGGTGCAGTGCCCGCCACAGGCTTCTGAGGCAAAGCGGCATCG  
GTTTGGATTCCCGAGGCTTCATCCCTGTCAACAAGGTGGGGTGGATGGCACTGGGTG  
GGGAGGACCCGGTGTCTGGGCTGGGAGTGGCAGGAAGTTCAGGT CAGGGCCCCTGTCA  
CACCCATGGAGCTCT

>non-DHS666

AGAGCTCCAAAGAGAGCTGAGGGGATGTGGGGCCCCAAACTCATTAATTCACTGAA  
GACACAGGTCCACAGGGAGCGGATGATGAAGCAGACCCCTCCTGT CATCACCCCTC  
TCCTGGTGTAGTGTGGATGCGAGGCCACGGCTCAGTGATGGGCTCACCACCAGAAG  
TGGGGAGAGACTTTGGGCCTCCACCCAGTGGGGCTTGGCCTGGCTTCTGTGGCCTG  
GGCGTGTGTGGA CT CAGGC ACTG

>non-DHS667

CTGATGTCATGGCTGGACAAAGT CACGGAGTAAAGCCAGCAAAGCCACCCTCTTCCT  
GTGTAGTCCCTTACAGGCATGACTGGAAAGTTGGGGGCATCTATGGTAGACATGGCA  
CAGCCATGAAGAGACCAGTGGGGTGGTGCAGGGTGGACTTGGGGACCCTACCCCTGA  
AGACTGAGGCCCTGCAGCTACCAGGTGGGCTAGAAGGTA ACTGGAACAGGCCTG

>non-DHS668

GCTCCATGTCCA ACTGCCATAGCAGCCTCATGGCCGGCTGTCTGGGCTCCACAGCC  
GGGACAGTGACCTAGGTGCCAAGGCTCATTGCCACCTGTGAGGGACAAACTCCTGC  
TGGAGAAGA ACTCAAGCGGCTGCTACAGCTGGAGAGGGGAAGGGGTGAGAGCCAGGG  
CCATGGCTGGGTGGGGTGGACTCCCATGGAGAGCCAGGGCTAGGGTCAGCCCTGGC

TTGGCTGCTCCTGAACACTTCACAGAGTCACCCT

>non-DHS669

ACTGTCACCTGAGCCCCCTAGTCCTCCCCCTCTTAGCTGCTGAACCCCTGCCAGCCCC  
ATGAGGCTGGGGTGAGCCTGTGCGTGGCCTAAGCAGACCCTCGGCCTCCAGCTCCCC  
TGCTCTCCCCAGAGCTGGAGCCTAGTCCCCGCCTGTGTGTCTGAGGTCGGTGCTGCC  
TGGCATGGTGGGGCTGCCCCAGGGTGAGGGCAGGGGCTGAGCTGGGACCTTGCTTG  
TAGCTGCCATCGACGA

>non-DHS670

ACCTGGGGACAGCTGGAGTTCGGGGTCCCCCTGGGCAGCCTTGGGGGCTAATGACCT  
GCCCTGGTGGGCAGCGCAGGAACCACGTGCACACATGCGTCCGTGGAAGCTGCAGG  
TTCCAGAGCTGGCTGTAGAGGGTGGGCAGCTCCTGGTGTGCTCTTAGGCAGGCCAG  
GTGCAGAAGGTGCCATGCTCTCCCTAACCATCCAGCCCTCCTCCCCAGCTTCATCAC  
GTTTCGCTCCTGTGCCTACCTGGACAAGAAGCATAACCATC

>non-DHS671

TGAAACGCCAGCAGTACGATATTTAAAATCCACTTAGAAGTAAAACTTCAAGACGGA  
AATATGCCACCAACACTGGCGTCAGTAATCCATTTTAGAAAGCCTGCGCGGAGACCA  
CCATTAGCACCGCTGAGGATATTTAATGAAAGCCGTTGGCTGCAAACAGAGGCGAAG  
AGAGAAAACGATTATTTCCGGTGTCTGCACACACGCGGAGGCAAAACGCTTTCAGG  
ACCTCAGCAGCC

>non-DHS672

CTCAGGGAGGAAAATCAGGTTGCTGGCTAGACCAGGAGGGTGTAGGCCACCAGGGCT  
CTCTCCAGAATTTGTCTGCTCGCTTCGCAAGATTTGCAGATGGTCCCCAATATTTAA  
GCAGCTTCCAAACACATCTGGACATCAAAGGGGACAAGATGCTCAGAAGTCAGGAAG  
AAGGCAGGACTCGGGCGACAGAGTTCAGAACTTGTGGTTTATTGACACTTCTGCATG  
GT

>non-DHS673

AGATGGTCCCCAATATTTAAAGCAGCTTCCAAACACATCTGGACATCAAAGGGGACAA  
GATGCTCAGAAGTCAGGAAGAAGGCAGGACTCGGGCGACAGAGTTCAGAACTTGTGG  
TTTATTGACACTTCTGCATGGTGGGTCCCTGGGAGACTGCCTTTCTGGCATCTTGGG  
ACTTGTCCCTAAGAATAGGGAAGACAGTCACTCCTGTCTGGAGCAAAGCTCCCCCTT  
GCACAGGAACACAACCTCCCATGC

>non-DHS674

CTCAGCCCTGAGTCACTGCACCATGCAGATCCACCCTGATTCTGGTCCCTGCAGAGC  
AGGCTCCTACACAAGGCAAGAAGATGCTCCAGGGACAAGCCAAGGTGTATGCAAGGC  
CCAGGTGCCTGAGAAACACGTCTCACCGACCTTGGGGCAGGGGCTGTTACAAGAGGC  
TTATAGTCTAGTGGCAGAGACAAAAACCACACTCAAATCATTAGTGTACGGTATGCA  
CTGCTCA

>non-DHS675

TGCTGTGATTCCCTCACACATAACATGTATCTGTTTTAGTTTCTTGGTTCAGTTCTCA  
GGCTGTGGTGA CT CAGGAGCCCTCACTGACTGTGTCCTAAAGAGAGAGACTTATTCT  
CATGTGTGGCTTCAGCACCACAGCACTGAATTCAGCAGAAGCCTGGTCAAGTCTCTCA  
GGACATTGATGTGTAACACAGATAACAAACACCCCTGGATGCCACTTGATTCTCTG  
GCTCCCTCCT

>non-DHS676

CCTCTGTTTCCTCCTCAGTAGTGGGAAGACCCCCTGTCAGGTGGGCCAGTCCATGAC  
 ATCTACAGAGGGAGCAGGAACCTCTCCTATTTCTGAGGAGAGCTGGGGTGGAGGC  
 TGCAACCCAGGATCATCAGAGGAGCTGGGGTCTTCAAGGTTCTAGGGACCCCTTAA  
 GCGGGGGTTCAGAGTGGCTTCAGCGGTCTTATTGCTCGGTCCAGACAGAAGATGTTTC  
 CAGTTG

>non-DHS677

CCAGACAGAAGATGTTTCCAGTTGTGAAAAACGACTTCAGGGACAACAAAAACAGAG  
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 GGGGAGAGAGTCTTAGACAGAGGAGGTTCTAAGTGTACCTAGATTTTCAGGCCTCGG  
 GGCTGTATTGGGTAGGTGATGTCACAGTGAGTTGATGCTCTGTAGCCCTTCCCTA  
 GGAGGTGGCAGAGGGAAGAGCTGGTGGTCTCTGAGGTGTGAGTG

>non-DHS678

CGCCTCTTTTCATGACTCCTCGGCCCTAAGGGCTTTTCATTCATTCATTCATCCATT  
 CATTTGTTTCAGACTCACTCATTCATTCATTCACAAACTCTCAGCTGTGGGCCAGGG  
 GCTGGTGTATGCAGCCCAGGACCCTGCCCTAGAGGAGCTCACAAGCTTGGAGAAC  
 GACATGGAGACACCCTGCCCCACCCTGTCAAGTCTCCAAGGTTGGCACTCTG

>non-DHS679

AGTCCACAAGGACAGCTCCTGAGAGGCCATGTGTACAGGACCCACCACGGGCCTCC  
 CACTTAGCCAGAGCCATGGCAGAGGCTCTGCCCTCGTCTTTAGTACATTCACACAA  
 GGGTCAGTCAGCAAAGACAGTCACTCTGCTGCCCTAGGAGGGAAAGGCAAAGTGGAG  
 AAGCTGGCACCTACCAGCCCACACTGAGGGACAGACACAGGTGGCTGTGACCAGCAG  
 AGCCTGGGTCTT

>non-DHS680

CTGCAACTACAGTGCAGGATGGGCTGTGATACTCAGCACTGTGGATGTCTGTCAAGG  
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 CCCCACCCAGCCAGGCGCTTGTCCACACAGCTGCCTTGGATGTCATTAGCTGG  
 AAAGCCGTGAGTGCCTGATGGGGAAGGAGTGGGGTGTGGGAGGTGTTTAGGCTGTG  
 ACAAAGGGATGCTAACTCCAAAA

>non-DHS681

GTTTAGGCTGTGACAAAGGGATGCTAACTCCAAAAACAGGCCCCAGTCCAGAGGCC  
 TCTTAAATGCAAATATGCCGCACCTGGGAGGGGGACAGGCCCTGGCTGAGATGAG  
 GAAGCCTGGAGGATGCCTCTGTTCCCTCTCCACCGCAGGCCCATGAGCTCTCAGAC  
 CAGCAGGAGGCTGATGCTGGAATATGCGCGCACCTGCTGGGGGATCTGTGCGCCTCA  
 GCTCCAAAGTACAGGAGCTA

>non-DHS682

CTAGACTCCAGTGTCCATGTCAGGTCCCATCCAGCTGGGATGCAGGAAACCAAAGGC  
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 GGAAGAGCCTGGTACTTGGGGCTGTTCTGTGCCCCACAAACAGAGGGACCGGCTGTA  
 AGGAGACTGGCCTGATGGGGAATGAGAGGGGCTGAGCCAGAGGTGCCGACACGGTAT  
 GTTTTAAGTAAGGTC

>non-DHS683

CCGACACGGTATGTTTTAAGTAAGGTCCAGGTGGCTGCAGGCGGGATGGAAACACAT  
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CCCCATCTGCAGCATCGAGACCTCTCCCACTCCGTCCGGCTGAGCTGGCCCTGCATT  
TGGGTAGCCTTCC

>non-DHS684

CAGTTCACCTGCACTGGTTCTCCTCCTGAGCCTGCCTTGTTCGGCTCTTGCCCCAA  
TGATCCCTTTGCCTAGCATGTCCTTCCCATCCTCACAGCTCAAAGTCACCTGGGCA  
GCTTCTTGGAAGTCTCCTCCTTCCCTGCATTCCATCTGTGAGGGCTCCAGGGTGCAG  
TGGGAAGGGGTGTTGGAAACTCCATTGAGCAGCTCAAGGCCAGCGCCTCTGACCCAC  
CTCATTCTCCAAACAATGC

>non-DHS685

AAGTGACCCACAGCTTAATCTTCCCTTCTCCTAAATCCCATTGGCACACTCCCTTC  
CCCTAATTCTCTATTTACTTCTCTGCTTCCCGCAGTGGACTCCAATTTCCCTGAGGG  
TGGACACCATGTCCGTTCTCTTTCCTTGTCTCCCCAGTGCTAGGCATATAACCAGGAA  
GCTTTCAGTACATGTAGGACAAATGAATAGTTAATGGACTTGAATCAAGCTTTACAG  
TATAAAAGCACTTTCACCATCTCAGGTGATCC

>non-DHS686

ATAAAGAGGCCATCTGGGTAAGACCTGTCCCGCCTGCTGTGGGGTATTAGGGCAGA  
TGGGGTCTGAGGGGTCTGAGGGCTCTGAGAGCAGCTGGCAGCTCAAGGACATCCGGA  
GTTGGAGGATGGAGCAATGCAGGCCCTTGTGGTAAAGACAGTCTGCAGCCGCGCAG  
GCAGGGATGCTGCAAGTGGAGTGCCAGGCCGGGTGCGGAGCCCTGTGGGACTGTGGAG  
GGGTCAGAGGGAAGCCAGGATTTT

>non-DHS687

GATTTTGGGGTCTCTGAGAGTTTGGAGAAGGGGAAGAAGATTAAAGCTTGTTTCAA  
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GGGTGGCCCACTGTTACTCTATTGATTTTTTGGGCGTTTTTTTTTCAAATTGATTATTC  
TTGCTGAATGAGACCTGAGTCCTTGACTGTCCCCTTAAAGCCACCTGACTTGTTTTC  
AGTTCCACTGG

>non-DHS688

TAAAGCCACCTGACTTGTTTTTCTAGTTCCACTGGCCTGTCCGGGCTGTTTTTCTACTCAA  
CTCCACTCTTGCTTGTCTGCCCTCCCTGCCTGGGGCCCAGCCAGCAGTCAGCTCAAG  
GGCCAGATGAATTGGGTGGCTGTGCTCTGCCCACTGGGCATCGTGTGGATGGTGGGT  
GACCAGCCCCCTCAGGTGCTCAGCCAGGCCTCAAGCCTTGCTGTGTACCTCAGAGCA  
GCTCCGTACCCTGATGTCACAGCAAAGAACTT

>non-DHS689

TACCTCAGAGCAGCTCCGTACCCTGATGTCACAGCAAAGAACTTAGACATGACACA  
AACTGTGGCTTCCCAAGGCAGCAAAGAATGGCCAGGGGTCATGAGGGCCGTGCCCCA  
CTTTTGGACAGACCTACTCTAAAGTCACGCTACCTGCGTGCAAATCATAAAATCAAC  
ACTTTTGAGGAGATCACAGCTATGCCTTCGTAACACAGCCCAGTCCGACCAGATAGA  
CGGTGCCTCGT

>non-DHS690

GCCAGTGATTAAAGTTCATCTCACACACTCAGGAAAAATAATTTGACAGTTATTTTA  
GGGAATGAAAGCTAGGTTCGTTTCCCGCATAAACAACATAAGCTTCTGACTCTTACC  
TCCCTCTTGATTTATTTAACCTCTGAATAGATGGTCTATATTTAAATAAGCAAGTAA  
AACACCGTACAAGTTAATACACAATGAAGACAGTACAGAGCCTATAGATTTGGG

>non-DHS691

CCCTCCTCTGGTCATTTCAGGGGCAGGTAAGGTGACGCCAGCACAGATGGCGGGCGGC  
TCTGGGAAGAGGCAGGCGGGAAATCCGACCTCCTGACAGGCAAGCGGGACCTGAA  
AGGTGGTATCCGCCTGAGCTGGGAGACAAATGAGGAGAGTGATGGGGACCCAGGCCA  
GGGATACAAGCAAGCAGAAGGCCACCAGCATCTATGACAAAAGTGTTTAATGCTCCA  
TAATGTGCAGC

>non-DHS692

ACAAGTACCAAAGCACCGACACTTGAGTCTGGGCTCCGAGTGGTGCACGTTTAGCCA  
AGCCACCTCCCAGCTCTGAGCTTGGGTTTCTTAAACAGCAAATGGGAGGAAGGACC  
CTGTCTCTCCCAGGTCACAGAATTAATAAAAAGCTTCTACCGGCATGCAGAGCCGCGA  
TGAAAGGTTGCAGAACAAGTCATTAAGTGATGATATTTACTGAGCCATGCAA  
GC

>non-DHS693

TGCTGTTTGGTCTCTAGAAACAGGGTCACTTTTTTAATGTAGTAAAGAAGTAATAAA  
TGGTGGCATTACACATTGTGATATTAATAGCGCTGTTGCTCATGTTTCTGTAACTC  
GCAGTGGCCCTGGGAAGTGGACGCCTCCCCTCTTCACTGCCCTGGAGGTTCAAGAAC  
TCGGCTCGCCAGGCTGCTAAGTGGCAGGGCTGGGATTTGAACCCAGGCCTTCTGGCT  
GCATTCCATG

>non-DHS694

GCAAAGCCTCTACAAGACAGTCACCCACAGATATGCCCAAGAATCAGTACACAGTT  
TCCAACCAGAGATCTCCAAAATGAAACACTCAGGGCTACACATAGGAAAAGCACGCA  
CACACACACACACACATAACACAGACACTTACTTTTGTGTCCTTCTGGCTATGCTG  
ACGAGTTTTCTGGTGAAGCCCGGGGCTCACAGAGTAATCTCTGCAGACAACTGTGG  
TTC

>non-DHS695

CCTGCACACCTCCAAGTCAGGGCACCAACACGCCACCGGGAGAGATGCTGAGAAA  
AACCCAAGACCGCTCGGGAAATGCAGGAAGGCCGGGTTGTGAGGGGTTGTTGCAATG  
AAATAAATACATTCCATGGGGCTCACACGTTGCTGGGGAGGCCTGGAGTCAGGTTTG  
GGTTTTTCAGATATCAGAAATCCCCTTGGGGGAGCAGGATGAGACCTTTGGATAGAA  
CAGAAGCTGAGCAAGAGAACA

>non-DHS696

GGTCACCTAGTCCCCAGCACTCGGTGTTCTCATGGGATTAAATGAGGCTGTGCCGGG  
GGTAGAGGGCGCAGAGCACAGCGCCAGGCACCAGCGTCTCTGGGCTCGATCCGCTTT  
CATTAAAGCTGTCCCCGCCCTTTTCGCCCCCGCGGTCCGGGACTCACCGACCGACTT  
GCCGCAGACGATGCTGACTGCGTTGAGCGCCCCAGACGAGGAACCGTAGATGCG

>non-DHS697

CCAGGGGACTGTGAGAAGAGGCGGGTCCCTCACAGCAAGTGCTCACTGGCCCTGCAT  
CCCAGAGCCCCCTGTGGTCAGCCCCCTCCTGCAGAGCAGCCCCCTCTGGGGTTTGCCA  
AGCTCCGGGGACCTAGTGAGGTTGTGGCTGCATCTCCATCCTGCGCACCACAGGGAG  
AAGCAATTAATGTAATAGATGCAGAGGCTCCCGGAATTACATTATTTAGGAGCTGC  
AGCTTACACACATATGCACGCGTG

>non-DHS698

AGACAAGGCCAGGTGGTTTCTGCACTCCGACCCGAGAGGGAGTGAGGCAGACAGGGA  
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ATCATGGCCTTGCTCAGGGCCCAACCTCCACAGCCCCTGAGGCCCCATGCTCACTTC

CCTTGGGGGCACTGTCCAGCTCCGGGGATGCAGACCCAGGCACCCTGCCGTCCACAG  
TGGTGTCTCATGCACTCACTGG

>non-DHS699

ACAGTGGTGTCTCATGCACTCACTGGGCACAGACCCGCCTGCTTGGTCTGGGAGG  
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GGCCTGGCGTGGTCACCAGGGGCACCCACCGTTGGGAGGCCCGCAGGGAGCGGGGA  
GTGCGCCAGGTCTGGGGTTCAGGGCCGGCAGCAGTAACGGCATCAGAACTGTGCTA  
GCGTCTGAATTGT

>non-DHS700

GACACACAGAAAGACCGACTCCTTGTGGGGCCCGGCAACGCGGCGGCACGCCACCC  
GCACGGCCAGGACAGGGAACGAGGCCGCCAGCCCTGACAGTCCCTTCGGCCCCCTCCG  
CAGTCCGCTACGGCGACGGCCCCCAGGCCTCCTCCCCGTGGCTCCAGTTCACCTTTT  
CCAGGACACGGCAACGGGACCCGGCCATCTGCGGACTTTTAGACCTGGCTTCCCTC

>non-DHS701

TGAGATCACCCACTATCTATCACTGCTTAGATAAAAAGGGAAAGAATTTAAATACTG  
TATAGTAAAAATTAACAGATAAGCTAACGATTC AATAGCCTAGCAATAGGTCTTAAA  
ACCACACCTTACTTAAACAGGTTTATAAACAATAGGGTCATTTTCAGCCACAGTTTG  
ATAAAGTAACATTGAACATGCATATTCTGTGATCCAGCAAGTCATCTACAAGGT

>non-DHS702

AATGAGAACAGCAGTTGTCTGTGGTGGGGAGCGGGATCGATTCGATAAACACATGAG  
GGGACTTTCTGGGGGAAGAGAAATGCTCTACATCTCAATATGGGGGTAGGTTATAGG  
GGTACGTGTATTTGTTAAGACTCATCCAACGTACTTAATTTCTGTGTATTTTAC  
TGTGTGTAATCACACTTCAATAGAAAAGGAAAAGGAAACAAGTGACAATGATGGAA  
ATCAGG

>non-DHS703

CAAGTGACAATGATGGAAATCAGGGTAAGAGTCAAGACATTTGCGATCCAGTCCCAG  
CAAGGAGATTAGCTGGGTGTTGTCACCTTCCACCCCCCTTTGAGTGTTCAAATCTT  
CTGGAAAACAAAATTTGGGCCAGGGACTGTTAAAAAATAGGAAGACAAAAATAAT  
ACTAAAAATATTGAGTCTTTACTCCCTTACACTAGCTGGGGTCAGACCTTGTACATA  
AACATCCTTTTCTAAAGGGG

>non-DHS704

AAGCCAAGGAAATGTGGATACAACTCATATACCATCAGTGACCACAAAGTCAATTGT  
GGGTGCCTAGAATCTGTCTCACCTGTGCAGTTC ACTGAAGACTCCTACTGCCTGAAA  
GAGAGAGTCTCTACAGAGAGAATTGGGGTGAGGCAGTGAGGAAGTCATTCTTGCTCT  
GTGGCTAACACTCAGCCTTCCCTCTAGCCCAAAGAAGAACA AACTGGAATAACTAT  
GGCTCTAAAAGCTCTTTCACATCTGCATCAGGAGTACAAACAC

>non-DHS705

CTCTCCTTTCTGTCACTGTGAGTGACACACCAGCTGATAGTGTTATGAATAGGAAG  
GTTTGGGCAGAGTGACTGTCAGAAATATTTTACCCTGTGAAAGGACATTTGTGGAA  
TGTTATGGCATCGTTGCCTCCTGCCCTCAGAGAATGTGGCATTGAGTATTGGGCTC  
TTGCCACTGTATCCAGCATAACCAAAGCGAGCTCCTGGCCTCATTGTACATTACAG

>non-DHS706

CTCAATTGGCTTTTACTCTGGGTTATTCAACTAAAAGTTTCATTTTCAGTGACTCAT  
AATATTGTTTACACATAATTTGTAAGCTCTATTTAATTACTTATGTAAATGACTAAA



CAAAAGATGGCAAATGCAGTGAATCTAAGACTGTACTTAATTCTGGTGTAACCTATT  
CTAACAATGTAATTAAGAGCTGTCCAATTTACACTTTGAAGTAAACAAAAGATCTTA  
CAAGAGATTGCAAGTGCCATC

>non-DHS707

CCCAAATGTTTTCCCTTTGGTCTTATTTTTGGGGAAATGGTGGGAGGTAGAGAAAATTG  
GAGTTAAAAGAAGAAACATTATGAAAAAATCCAAGCCAGCTATTTTATCTTATAAT  
CATTTCATCATGAGTTTCTTTGATGTTCTGGCTGTTCCGGTGTGCCTATGTTTTCTGA  
TAAGGGCATAAATACACTTAGTTTAATATTAATTTAGCCTTTGTAAGCAGCACTTGA  
AGGGACTTAAGT

>non-DHS708

CTTCCTCGTGTGAGGGGATCTGCCGGACCCCTGCAAATTC AATTTCTTTCCCATTC  
GGGCCCTTCCCTATCGTCGCCCCCTTACCTTGGATCATGTTCAAGAAGTAAGGACA  
TGCTGTGGCCTCCATCGGCTGCTCACAAAGGCGGTGGGGTGGGGTGGGGAAGAGGG  
CGAGAGCTAAGATCCTCTTTCTCTCTCCCCCGCCCCTGCCATCCTGACTCCCTAAGG  
TTTTCT

>non-DHS709

AGAGTCCAATTGTGACCATAAGCAAATACATCCACCCTTACACATAAGCACCAAAAA  
TTTGCCAACCCATAAGTTAAGTTCTGTTAGGTTTCTGTTTGTATTGAAAACATT  
AGTCTTCCCCTTTTCCACTAGGTATATAGGTAGAAAAATAAATGAAGTCAGCACTCT  
TTACGTCTCACTAAAATAAACTGTGACTCAAATACTGTGAGTGGTTATTTGCAAGG

>non-DHS710

TCAAAGTACACTACCTGCCTCTGGTCCATGAACAAGGAAAACTTTTAAAAGAAAAC  
GGGTCATCAAAC TAGGCTATTTTGGCTTGTGCGTTTTAATGCCTGTGGTTTACATC  
TCTTACTGAAGCCATGTTTTTACCTGCTCTCTGACACAAAGTGCCTTCAAAGTCCT  
GGTCTCTGGTGGTGTGTCAGGCTGATGATGCATTACCCTTCTCAGTGCTCCTCAAAT