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1
brkSana  -----G TTTTCGAAAG CGAACTCATC TCTCACCTTT GGGATG-GGA
brkSere  -----A TCGCCGGAAG -----TC TCTCACCTTT CGAATG-GGA
brkSgri   -----A TCTTCGGAAA -----ATC TCTCACCTTT CAAATGGGAA
brkSmel   -----A TCTTCGGAAA -----TC TCTCACCTTT CGAATG-GGA
brkSmoj   TGGTAGTTCGG AGATGACGAG TAAGAAGAAAG ACGAAGAAAAA AAAAAAAAT AAACGAAAAAT GAAATAAAAAC
brkSper   -----G TTCTCGAAGA AGAC-----CC TCTCACCTTT CAAATGTGGA
brkSpse   -----G TTCTCGAAGA AGAC-----CC TCTCACCTTT CAAATGTGGA
brkSsec   -----A TCGTCGGAAG -----TC TCTCACCTTT CGAATG-GGA
brkSsim   -----A TCGTCGGAAG -----TC TCTCACCTTT CGAATG-GGA
brkSvir   -----
brkSwil   -----TCACCTTT CAAATG-GGA
brkSyak   -----GAA

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71
brkSana  AATTCCCTTGG -ATCATCG-- --GGTGTGC GCGGAAGGCC GTGC--AAGC A--TGCAAAT AAAAAATTTCA
brkSere  AATTCCCTGAG GATCATCG-- --AGTTGGGC AGAGAAGGCC GTCCATAAGC A--TGCAAAT AAAGATTTCA
brkSgri   ATTCCGCTAC GCCCCAAG-- --TTGTTGGGC G-----ATGC A--TGCAAAT AAAAAATTTCA
brkSmel   AATTCCCTTAG GATCATCGAG CTAGGTGTC AGAGAAGGCC GTTCATAAGC A--TGCAAAT AAAGATTTCA
brkSmoj   AAAATGTTGC TAACAGCG-- --CAA AGTAAGTGC GGGCG--AAGC A--TGCAAAT AAAAAATTTCA
brkSper   AATTCCCTTGG -----ATCG----- AGAGAAGGC ---CATAAGC A--TGCAAAT AAAAAATTTCA
brkSpse   AATTCCCTTGG -----ATCG----- AGAGAAGGC ---CATAAGC A--TGCAAAT AAAAAATTTCA
brkSsec   AATTCCCTTAG GATCATCG-- --AGCTGGGC AGAGAAGGCC GTTCATAAGC A--TGCAAAT AAAGATTTCA
brkSsim   AATTCCCTTAG GATCATCG-- --AGCTGGGC AGAGAAGGCC GTTCATAAGC A--TGCAAAT AAAGATTTCA
brkSvir   -----
brkSwil   AATTCCCTTCA ATTGCGCG-- --AGG AGAAAAAGAA GGTCTGTAAGC A--TGCAAAT AAAAAATTTCA
brkSyak   AAAT----- -AACCAACC----- -GAAAAAAC-- -CATAAGC GATTTCAGGC AATTAGTTTCA

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141
brkSana  -----CACCTTGA CGGGTGCGCA C-TGCG -----CAC TCGCCGATA GGTCCCTGTCTG
brkSere  -----CACCTTGG CC--AGCGCA C-TAGGGGTG CACATGGTGC TGCAT-----A GAGGCTCTC-
brkSgri   -----CACCTTGA AC--CGGGGA AATACC----- TGCATGGTGC AGCAT-----A G-GGCTCTC-
brkSmel   -----CACCTTGG CC--AGCGCA C-TAGG--G TGCATGGTGC AGCAT-----A G-GGCTCTC-
brkSmoj   -----CACCTTGT AGTCCGGGGA AATACC----- CGC CGTAGACACA AGACACAGGG
brkSper   -----CACCTTGG CCGAAACGAA CACAGG----- AGGGTGC TGCACGTGAGA GGTGCACCTCT
brkSpse   -----CACCTTGG CCGAAACGAA CACAGG----- AGGGTGC TGCACGTGAGA GGTGCACCTCT
brkSsec   -----CACCTCGG CC--AGCGCA C-TAGG--G TGCATGGTGC AGCAT-----A G-----TCTCA
brkSsim   -----CACCTTGG CC--AGCGCA C-TAGG--G TGCATGGTGC AGCAT-----A G-----TCTCA
brkSvir   -----CACCTTGG ACAACGGGGA AATACC----- CGC TGGAA--AATA GAAAAACCTTG
brkSwil   -----CACCTTAG CCT--CACACA AGGAGG----- GC AGCATCAGCA G
brkSyak   AAAATGAAACT GGCATTTTGA GCG-----

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211
brkSana  GCG-GTCCGA ACAAACAGG ACAGAACAAC AAAAAATATT ACAAATGTGAA ACACCT--GG -GAAATACCC
brkSere  ---AGCCAA AGGACTC-----GAAAC GAAAAGCATG GA-----GG ACACCT--GG -GAAATACCC
brkSgri   -----AACCTG ACGGTGTGTC AGATGTGAAG GTAGTTCGTA GCATCAAGC -ATAAGGCCG
brkSmel   ---AGCCAA AGGACAC-----GAAAC GAAATGCATG GAGATCG-GG ACACCT--GG -GAAATACCC
brkSmoj   CCA-ACCTGC TGTTCGCTCT AAGCGAGAAC AGATGCCACA A-----GG TGTCCCAGGC TGCAGGATA
brkSper   ACTCGGCTGC ACTCAGC----- -GCTGGATC GTCGTGCAC ACATCTGGG -GAAATACCC
brkSpse   ACTCGGCTGC ACTCAGC----- -GCTGGATC GTCGTGCAG ACATCTGGG -GAAATACCC
brkSsec   GCATAGCCAA AGGACAC-----GAAAC GAAATGCATG GAGATCG-GG ACACCT--GG -GAAATACCC
brkSsim   GCATAGCCAA AGGACAC-----GAAAC GAAATGCATG GAGATCG-GG ACACCT--GG -GAAATACCC
brkSvir   CCA-ACCTGC TGTTCAC--TGGCAAAAAC AGAT-----GC AAAC--GG -CCGATACCC
brkSwil   -----CAGCAAC AGAC-----AC ACATCT--GG -GTAATTCCC
brkSyak   -----ACTTA AGTCAGCAAT GCAACAAATA AATATATATT AAATATATA -TTAATGATT

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281
brkSana  A-TCCTGCCC GAA----- GACCTACACA TGGACCTACA TATGGACGTA CATATGGGCA AAACTTCCCT
brkSere  A-ACCTGCCC GAAACACATG GACCTACACA TGGACCTACA TATGGACGTA CATATGGACG CA-----CCC
brkSgri   AGGACGGGCC ACAGGACA----- -TATGGACGTA A CACAAGGATA CA-----GT
brkSmel   A-ACCTGCCC GAA----- CATATGGACG CACAACGCAC CA-----CAC
brkSmoj   A-AGCGAAGT GAAAGACTG----- -A CAGAGAGAGA GA-----GAG
brkSper   A-ACCTGCCC GAA----- -A CATATGGACT CG-----
brkSpse   A-ACCTGCCC GAA----- -A CATATGGACT CG-----
brkSsec   A-ACCTGCCC GAA----- -A CATATGGACG CA-----CAC
brkSsim   A-ACCTGCCC GAA----- -A CATATGGACG CA-----CAC
brkSvir   T-GCCATAAG GAGCATCA-----G CATAAGATTG GG-----CTT
brkSwil   AAACCAAGCT AAAAAAAA----- -A CACACACACA CA-----CAT
brkSyak   A-ATTTAAGT AGCGA----- -A CATAATTGTA GA-----

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351

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|---------|------------|------------|------------|------------|------------|------|-----|--------------|------------|-----|------------|
| brkSana | A---- | GC | ACT | GTCTCTCTCT | GAAAGGCGAT | TGTC | TC | AAATGGGAAG | AAA | TCG | AGGGA |
| brkSere | AGGTGGGATC | TCCTGTCTCG | | | | C | ACT | GAATGGAAAAG | CAGAG | CTC | TCTATAGGCA |
| brkSgri | GGATGGGACT | GACATGACTA | TGAGTGTGAG | TGGAGAGCGC | CGAGAGACGG | | | GCAAATCTC | | | TTTGTAGTCA |
| brkSmel | AGGAGGGATC | | TCTCG | | | C | TCT | GAAATGGAAAAG | CAGAAACTC | | TCTATAGGCA |
| brkSmoj | AGAGAGAG | | | | | | | AGAGAGAAAAG | AGAGAGAGGG | | AGAGAATGCA |
| brkSper | AAAAAGAACC | AAGGATCTTA | GCCGGCCGAT | TGTC | AAAT | | | GAATAGAGCG | AGAGAG | T | GGGATAGGGA |
| brkSpse | AAAAAGAACC | AAGGATCTTA | GCCGGCCGAT | TGTC | AAAT | | | GAATAGAGCG | ATAGAG | T | GAGATAGGGA |
| brkSsec | AGGAGGGATC | | TCTCG | | | C | TCT | GAATGGAAAAG | CAAAA | C | TCTATAGGCA |
| brkSsim | AGGAGGGATC | | TCTCG | | | C | TCT | GAATGGAAAAG | CAGAA | C | TCTATAGGCA |
| brkSvir | AAGGACAAAG | GGAGAGCGAG | AGAGCGAGAG | AGAG | | | | AGAGGGAGAG | GGAGAG | | AGCA |
| brkSwil | ACAGACACAC | ACACACCTCA | AAATGA | | | | ACC | ATATGGACAC | GAACAAGGAT | | TCTTTGAGCA |
| brkSyak | AACTAGCTTT | AAATAGCTAC | ATTAAATAAC | AGACTTTAGT | | | | CAATAGATTG | TGCAAA | | ATATGCA |

421

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|---------|------------|------------|------------|------------|------------|-------------|------------|------------|------------|------------|
| brkSana | | | | | A | TTAAGAATCG | AGGACCGAC | | CG | ATAACACTAA |
| brkSere | | | | | C | TAG | | | TA | TCCATCCAAG |
| brkSgri | | | | | | ATGCTTCT | CAATGAAAGA | GAATTGAACA | AATGTTGCCA | GTGAGCGAA |
| brkSmel | | | | | C | TAG | | | TA | TCCATCCAAG |
| brkSmoj | CTTGGAATAG | TCCAGTCT | T | AGATGCTTCT | CAATGAAAGA | GGCCTGCTCA | CTGTGTAGCT | | | TCCGATTAG |
| brkSper | GAGAGCGCGG | CCGAGGACGA | GGCCGAGGGC | GAGAGAGATC | | | | | TT | CTTGACCAAG |
| brkSpse | GACAGCGCGG | CCGAGGACGA | TGCCGAGGGC | GAGGGCGAGA | GAGATCTTC | | | | | TTGACCAAG |
| brkSsec | | | | | TAGCCAAAAA | CCAACCATC | | | CA | ACCATCCAAG |
| brkSsim | | | | | TAG | | | | CA | TCCATCCAAG |
| brkSvir | CTCGATGCAT | TCCAGTGT | TTT | TGAGGCTTCT | CAATGAAAGC | AATGTGTAGTT | GTTCG | CA | | GTGAGGGAG |
| brkSwil | | ACTCAG | GCGTACATAT | TGATGATTGT | CAATGAATAG | AA | | | | AG |
| brkSyak | | | | | GCACCT | GCAACATTAG | CAAACTTGC | | TA | CTTGCAACAG |

491

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|---------|-------------|-------------|-------------|-------------|------------|------------|------------|------------|--|--|
| brkSana | AACGTTCCCG | | A | AAACCCCTCAC | A | | ATA | | | |
| brkSere | TGCATTCCCG | AAAAAAAAAG | AAACCCCTCAC | A | | ATA | | | | |
| brkSgri | C--GTAAAAG | AGACAGACAG | AGACAGAGAC | AGAGAGAGAG | AGAGAGAGAG | AGAGAGAGAG | AGAGAGAGAG | AAAGAGGGAG | | |
| brkSmel | TG-GTTCCCG | AAAAAA | AAACCCCTCAC | A | | ATA | | | | |
| brkSmoj | TTGTTGCACA | | C | ACATACACAC | ACACACAGCT | ATACTCCCGC | ACACACATAC | AAATGTGCAT | | |
| brkSper | TG-GTTCCCTG | A | A | AAATCTTCAC | AAAAATACGT | ACA | | | | |
| brkSpse | TG-GTTCCCTG | A | A | AAATCTTCAC | AAAAATACGT | ATA | | | | |
| brkSsec | TG-GTTCCCG | AAAAA | A | AAACCCCTCAC | A | ATA | | | | |
| brkSsim | TG-GTTCCCG | AAAAAA | A | AAACCCCTCAC | A | ATA | | | | |
| brkSvir | T--GTTTCTT | ACAGAGCTGC | ACACACACAC | ACACCTGAAC | ACACACACAC | ACACACACAC | ACACACACAC | ACATAGAGAG | | |
| brkSwil | ACAGATAGCA | AGAAAAGAGAG | AGAGAAAAGAT | | GAGC | ATA | | | | |
| brkSyak | CTAGTGAT | | A | AAACACCAAC | A | ATA | | | | |

561

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|---------|------------|------------|------------|------------|----|-------------|------------|-----------|
| brkSana | | | | | TA | ATTTCGTAAAT | CCCAGCCGCA | G--GTATTT |
| brkSere | | | | | TA | ATTTCGTAAAT | CCCAGCCGCA | G--GTATTT |
| brkSgri | AGATGGCAAA | TGAATTCTAG | AGATGTACAC | GAAGCACATA | TA | ATTTCGTAAAT | CCCAGCCGCA | G--GTATTT |
| brkSmel | | | | | TA | ATTTCGTAAAT | CCCAGCCGCA | G--GTATTT |
| brkSmoj | GGCTAGTGT | GTGTTCACG | TGG | | TA | ATTTCGTAAAT | CCCAGCCGCA | G--GTATTT |
| brkSper | | | | | TA | ATTTCGTAAAT | CCCAGCCGCA | G--GTATTT |
| brkSpse | | | | | TA | ATTTCGTAAAT | CCCAGCCGCA | G--GTATTT |
| brkSsec | | | | | TA | ATTTCGTAAAT | CCCAGCCGCA | G--GTATTT |
| brkSsim | | | | | TA | ATTTCGTAAAT | CCCAGCCGCA | G--GTATTT |
| brkSvir | CGACGCGCAG | CAGCTCTTCA | CGAGG | | TA | ATTTCGTAAAT | CCCAGCCGCA | G--GTATTT |
| brkSwil | | | | | TA | ATTTCGTAAAT | CCCAGCCGCA | G--GTATTT |
| brkSyak | | | | | GA | GAGTGCACA | TGCAGCTGCA | GTGTAACTT |

631

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|---------|------------|------------|---------|--|------------|-----|--------|------------|------------|
| brkSana | AGTTCCGCCT | TTT | | | GAATTC | ATG | CTATTA | TTGCACCTAA | GCCACGCCA |
| brkSere | AGTTCCGCCT | TTTG | | | GGAATTC | ATG | CTATTA | TTGCACCTAA | GCCACT--- |
| brkSgri | AGTTCCGCCT | TTTG | | | GGAATTC | ATG | CTATTA | TTGCACCTAA | GCCACT--- |
| brkSmel | AGTTCCGCCT | TTTG | | | GGAATTC | ATG | CTATTA | TTGCACCTAA | GCCACT--- |
| brkSmoj | AGTTCCGCCT | TTTG | | | GGAATTC | ATG | CTATTA | TTGCACCTAA | GCCACT--- |
| brkSper | AGTTCCGCCT | TTTG | | | GGAATTC | ATG | CTATTA | TTGCACCTAA | GCCACT--- |
| brkSpse | AGTTCCGCCT | TTTG | | | GGAATTC | ATG | CTATTA | TTGCACCTAA | GCCACTGCCA |
| brkSsec | AGTTCCGCCT | TTTG | | | GGAATTC | ATG | CTATTA | TTGCACCTAA | GCCACTGCCA |
| brkSsim | AGTTCCGCCT | TTTG | | | GGAATTC | ATG | CTATTA | TTGCACCTAA | GCCACT--- |
| brkSvir | AGTTCCGCCT | TTTG | | | GGAATTC | ATG | CTATTA | TTGCACCTAA | GCCACT--- |
| brkSwil | AGTTCCGCCT | TTAG | | | GGAATTC | ATG | CTATTA | TTGCACCTAA | GCCACT--- |
| brkSyak | AAAGCCACTT | CTTGAAACAT | TCAAGCA | | GCAGCAGCGA | ATG | CGTCA | TCCTAGGGAA | GCTGCC--- |

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|---------|---------------------|---------------------|---------------------|--|--|---------------------|---------------------|-----------|---------|---------------------|---------------------|--|---|---------------------|-------|-----|--|---------------------|
| brkSana | G G C C T C C G C | T A | | | | G G A G T G | G C A | | C T G G | C A G T | | | T | G C T A G T T G C A | A G | | | A C G |
| brkSere | | | | | | G G A G T G | G G A G G | T T T T G | | C A G T G T G T G T | | | | G C G C G T T G C A | A G | | | |
| brkSgri | | | | | | | | | | | | | | | G C G | A C | | A C G |
| brkSmel | | | | | | G G A G T G | G G A G G | T T T T G | | C A G T G T G T G T | | | | G C G C G T T G C A | A G | | | |
| brkSmoj | | | | | | | | | | | | | | | G C G | A C | | |
| brkSper | G C C A G C G C A G | T G G C A A T G G C | A G T G G C A G G A | | | G G A G G A A G A G | G A G T G G G A G T | | | A G G A G T A G G A | G T | | | | | | | |
| brkSpse | G C C A G C G C A G | T G G C A A T G G C | A A T G G C A G T G | | | G C A G G A G G A G | G A A G A G G A G T | | | G G G A G T A G G A | G T | | | | | | | A G G |
| brkSsec | | | | | | G G A G T G | G G A G G | T T T T G | | C A G T G T G T G T | | | | G C G C G T T G C A | A G | | | |
| brkSsim | | | | | | G G A G T G | G G A G G | T T T T G | | C A G T G T G T G T | | | | G C G C G T T G C A | A G | | | |
| brkSvir | | | | | | | | | | | | | | | G C G | A C | | A C G |
| brkSwil | | | | | | | | | | | | | | | | | | |
| brkSyak | | | | | | | | | | A | C A C A A G C T G T | | | A C C A G C A G C A | A C | | | A C C T G C A A C A |

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|---------|-------------|------------|------------|------------|---|-------|------------|-------------|
| brkSana | CCTTGCTGCTG | GTTGTGAGT | T | CCCCA | | TC | AGCCCGTCCC | TTTC |
| brkSere | -TTTGCTGCTG | CCGGTGGGCA | | ACACATT | G | AATTC | CGCCCGTCTC | TTTCTGGCCG |
| brkSgri | ACAACGGCTA | ACACACACAC | | ACACACA | G | ACATA | GACACAGCAA | TGCACACCTA |
| brkSmel | -T- -TGCTG | CCGGTGAGCA | | ACACATC | G | AATTC | GTCCCATCTC | TGCTTGGCCG |
| brkSmoj | - - - - - | - - - ACG | | GACACA | C | ACACT | TACACATCTA | CACGTGACATG |
| brkSper | - - - - - | A | | TAGGAGG | A | ACATA | CACCATTCCA | TCTC |
| brkSpse | AGTAGGAGTA | AGAGTAGGAG | | GAACAT | | ACACC | TTTCCATCTC | - - - - - |
| brkSsec | -T- -TGCTG | CCGGTGAGCA | | ACACATC | G | AAATC | GTCCCATCTC | TGTCTGGCCG |
| brkSsim | -T- -TGCTG | CCGGTGAGCA | | ACACATC | G | AAATC | GTCCCATCTC | TGTCTGGCCG |
| brkSvir | ACA- -CG | GCCAACACAC | | ACACACA | C | AAACG | CACATACACA | CACACACGCA |
| brkSwil | - - - - - | A | TAGAGCACTG | AGCACCCAGC | A | AGATC | AGTCCATCTC | G- - - - |
| brkSyak | TCAACGCACA | GCAACAAGCG | | TCACAGA | A | CCTGC | AGCATAGAAC | TGCCACAAAG |

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|---------|------------|-----------------|------------|------------|------------|------------|
| brkSana | -----TC | TCTCGCTCGC | TCGGTGTGT | TTTTAAGCCA | CTGTCTCGCT | CTGAATCAGC |
| brkSere | CATCTCGCCG | TCTCTCTCGC | TCTTTGTGT | CG | CTGTCCCGCT | CTGGTTCTGT |
| brkSgri | CACACAGCTA | -----GAACTAGC | TATGCG | ----- | CCATTCTCGT | CGCACTTGGG |
| brkSmel | CGACTCGTCA | TCTCTCTCTC | TCTCTGATC | CT | CTGTCCCGCT | CTGGTTCTGT |
| brkSmoj | CACGCAGACT | -----CAGC | TACGCG | ----- | CTGACTCGCT | CGCACTTGGG |
| brkSper | ----- | TCTCCCTCGC | TATGTGTATG | ----- | CCATCTCGCT | CTTGATCATG |
| brkSpse | ----- | TCTCCCTCGC | TATGTGTATG | ----- | CCATCTCGCT | CTTGATCATG |
| brkSsec | CAACTCGCCA | -----TC | TCTCTCTCTC | CT | CTGTCCCGCT | CTGGTTCTGT |
| brkSsim | CGACTCGCCA | TCTCTCTCTC | TCTCTGCTCT | CT | CTGTCCCGCT | CTGGTTCTGT |
| brkSvir | CACCTTGC | -----CTAGC | TCTCTGCTCT | CT | CTGTCCCGCT | CTGGTTCTGT |
| brkSwil | ----- | ----- | TATGCG | ----- | CTGTCTCGCT | CGCACTTGGG |
| brkSyak | CCTGCAACCT | -----GCAACCTGCG | ACTGCAGCAA | CTGTTAGAAA | ATGCCACACA | T-----CG |

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|---------|------------|------------|------------|------------|------------|------------|------------|-------|
| brkSana | CTGGACCTT | TCCTCGACGC | C-GGTATCGC | AGGTCAG | | | | |
| brkSere | CTCATGC | --- | GGGGGCCGC | AGGTCAA | | | | |
| brkSgri | CC | --- | TGTCGC | C-GGGCCGC | AGGTCAG | | | |
| brkSmel | CTCTTGC | --- | TGTCGC | C-GGGCCGC | AGGTCAA | | | |
| brkSmoj | TCCTC | --- | TGTCGC | C-GGGCCGC | AGGTCAG | | | |
| brkSper | CTATTGT | --- | CGCCGC | GGGCCGC | AGGTCAG | | | |
| brkSpse | CTATTGT | --- | CGCCGC | GGGCCGC | AGGTCAG | | | |
| brkSsec | CTCCTGC | --- | TGTCGC | C-GGGCCGC | AGGTCAA | | | |
| brkSsim | CTCCTGC | --- | TGTCGC | C-GGGCCGC | AGGTCAA | | | |
| brkSvir | TC | --- | TGTCGC | C-GGGCCGC | AGGTC | | | |
| brkSwil | --- | --- | TGTCGC | C-GGGCCGC | AGGTCAGGAT | GATGGGCACC | CAACGGCGAT | GCCGA |
| brkSyak | CTGTTGACCT | GCGGCCCGG | C-GACAGCAC | GAACCAGAGC | GGGATAGCAA | TAACAGAGAG | AGAGAGAGAG | |

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|---------|-------------|------------|-------------|------------|------------|------------|------------|
| brkSana | --- | --- | --- | --- | --- | --- | --- |
| brkSere | --- | --- | --- | --- | --- | --- | --- |
| brkSgri | GTTCGCTTGC | CACGAAAATC | CACACGCACA | CTCTTTTCAT | ACACACACGC | ACACACACAC | ACACACACAC |
| brkSmel | --- | --- | --- | --- | --- | --- | --- |
| brkSmoj | TTTCGCTTGGC | ATGAAAAATC | CACACGCACCT | CTATTGTGA | GCACACACAC | ACTAGCAGAC | ACACACACAT |
| brkSper | --- | --- | --- | --- | --- | --- | --- |
| brkSpse | --- | --- | --- | --- | --- | --- | --- |
| brkSsec | --- | --- | --- | --- | --- | --- | --- |
| brkSsim | --- | --- | --- | --- | --- | --- | --- |
| brkSvir | --- | --- | --- | --- | --- | --- | --- |
| brkSwil | --- | --- | --- | --- | --- | --- | --- |
| brkSyak | ATGGCGAGAG | GAGGACAGAA | AGAGATGGAA | GCAATTCACT | AG | --- | --- |

1051

| | | | | | | | |
|---------|------------|------------|-------------|------------|------------|------------|-------------|
| brkSana | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSere | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSgri | ACACACACAG | ACACTTGGCG | TTGCAATGCA | TTTTGTTTG | TCTATGCGGC | TGAATGGCCC | GAAAAACACT |
| brkSmel | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmoj | TTGTCTAGGC | AGCTGAATGG | TTCGAACAAAC | ACTTGGCCAA | AAGAGAGGAG | AACAAAAAAA | AAAAATAAAAT |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsim | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSyak | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

1121

| | | | | | | | |
|---------|------------|------------|------------|------------|------------|------------|------------|
| brkSana | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSere | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSgri | TGGCCAAAAA | GTCTAACAGG | CAACCTGCAC | AGTTCCCGGC | TGCT | TTTAG | CCCCGGGGAC |
| brkSmel | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmoj | AAAAATAAGA | AGAAAGAAAG | AAAAAATCCA | ACAGGCAACC | TGCACGGGTC | TCGGCTTTGA | GTCCCGTGGG |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsim | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSyak | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

1191

| | | | | | | | | |
|---------|------------|------------|-------------|------------|-------------|------------|-------------|------------|
| brkSana | ----- | ----- | CA | ACACCAAGCT | GTTTTTCCG | ----- | TTTTC | AAGTT |
| brkSere | ----- | ----- | CA | GCGATGTGTG | GCATTTTCCA | AGAGTTGC | TTTTC | AGGTT |
| brkSgri | TGCCTAAGGG | CTATTGTTCA | ATAAATTTTTC | GTTTCTTTT | ----- | TTGTTG | TTGTTGTTTTT | TTTTTCTTT |
| brkSmel | ----- | ----- | CA | GCGATGTGTG | GCATTTTCTA | ACAGTTGCTG | CTGCTGTTCG | AGGTT |
| brkSmoj | CTGCCTGGGG | CTATTGTTCA | ATAAATTTTTC | GTTCCTTTT | ----- | TTGTTG | TTGTTGTTTC | TGTGC |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | ----- | ----- | CA | GCGATGTGTG | GCATTTTCCA | ACAGTTGCTG | CTGTTGTTCG | AGGTT |
| brkSsim | ----- | ----- | CA | GCGATGTGTG | GCATTTTCTA | ATAGTTGCTG | CTGCTGTTCG | AGGTT |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSyak | ----- | ----- | TG | ACGATGCCTC | GAAAAATCCAC | ACGTACTTTT | CATTGTAGAC | AAATT |
| | ----- | ----- | CA | GCAAAACCTC | CCACTCCAG | ----- | TGGCTT | AGGTGCAATA |

1261

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|---------|------------|--------|------------|------------|------------|-------------|-------|-------------|------------|-------|
| brkSana | ----- | G | ----- | CAGGGA | ----- | GCT | GC | GGTT | GTTA | ----- |
| brkSere | ----- | G | ----- | CAG | ----- | GCTTTGTG | GC | AGT | TTG | ----- |
| brkSgri | TTCTCTTTTG | ----- | TTGTTTTTGT | TTCTGGTTCT | TCGTTTGTG | CT | CGTT | GCTGAGCCCCA | AGCGACATTG | ----- |
| brkSmel | ----- | G | ----- | CAGGTTGC | ATGTTTTGT | GC | AGTT | GCTG | ----- | ----- |
| brkSmoj | ----- | GACATT | GA | ----- | TGAATTGA | GGAAATGATTG | GC | AGTA | ACGT | ----- |
| brkSper | ----- | ----- | ----- | ----- | ----- | GCCAGGCT | GC | TGCT | GCTG | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | GCCAGGCT | GC | TGCC | ----- | ----- |
| brkSsec | ----- | G | ----- | CCG | ----- | GTTTTGTG | GC | AGTT | GCTG | ----- |
| brkSsim | ----- | G | ----- | CAG | ----- | GTTTTGTG | GC | AGTT | GCTG | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | ----- | ----- | ----- | TTGGTTCC | CTCTTTTCT | TCACGTGTC | TCCT | ----- | ----- | ----- |
| brkSyak | ATAGCATTGG | ----- | ----- | GAAATCCA | AAGTTGGACA | AA | AGGC | GGAA | ----- | ----- |

1331

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|---------|------------|------------|------------|-----------|-------------|------------|------------|------------|
| brkSana | ----- | ----- | ----- | A | AACTTTTATG | ACGAGAAAAG | ----- | ----- |
| brkSere | ----- | ----- | ----- | C | AGGTTCTATG | ACGCTTGCAT | ----- | ----- |
| brkSgri | ATGAATTGAA | GAATGATTGG | CAGAGCCGCA | GGGTATAGG | ACGTTAGCGT | CGACGCTGAC | TGCGACGGCG | ----- |
| brkSmel | ----- | ----- | ----- | C | AGCTTATATG | ACGCTTACAT | ----- | ----- |
| brkSmoj | ----- | ----- | ----- | C | AGCGGCGACG | TCGACGTCGG | CGGCGTTGCC | AGCGGCTTTG |
| brkSper | ----- | ----- | ----- | C | TGCCTCGCTG | GC | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | ----- | ----- | ----- | C | AGTTTCTATG | ACGCTTGCAT | ----- | ----- |
| brkSsim | ----- | ----- | ----- | C | AGTTTCTATG | ACGCTTACAT | ----- | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | ----- | ----- | ----- | T | TTTTTTTTTTG | TTG | ----- | ----- |
| brkSyak | ----- | ----- | ----- | C | TAAATACCTG | CGGCTGGGAT | ----- | ----- |

1401

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|---------|------------|------------|------------|------------|------------|------------|------------|
| brkSana | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSere | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSgri | ACTGCAGCAG | CGTTTTGTGC | ACTTCAATAG | AATAAAACAA | CAACAACAAC | AAAAAGAAAT | AAGTCAGCGA |
| brkSmel | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmoj | CCTCGTTTTG | TGTGCGGCTC | AATAGAAAAA | TAAATAAGTC | AGCGAGAGCC | GACAAGA | --C----- |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsim | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSyak | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

1471

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|---------|------------|------------|-----------|------------|---------|-------|------------|
| brkSana | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSere | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSgri | GCCGACAATG | TTGTGTGTTT | CGGCCAGAC | TGACTGGCAC | CTTTTTC | ----- | CTGTTTCTGT |
| brkSmel | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmoj | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsim | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSyak | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

1541

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|---------|------------|------------|------------|------------|------------|------------|------------|
| brkSana | CCT | CCTA | AATA | ----- | ----- | ----- | ----- |
| brkSere | TTG | CATA | GCTTATGCTG | CAGCTAATA | ----- | ----- | ----- |
| brkSgri | ATG | CCTC | TCAGAGCGAG | ACAGACACAC | CGACTGCCGT | TCGTGCTATC | TCAGCAAGTG |
| brkSmel | TTG | CATA | GCTTATGCTG | CAGCTTCTAT | TGATGACTAA | TTTATGTTG | TGTGCGAGAG |
| brkSmoj | CCG | CTTT | TCTAATGAAT | ACGACGCTA | ----- | ----- | ----- |
| brkSper | CTG | GCTG | GCTG | ----- | ----- | ----- | ----- |
| brkSpse | CTG | GCTG | GCTG | ----- | ----- | ----- | ----- |
| brkSsec | TTG | CATA | GCTAATGCTG | CAACTTCTAT | TGATAACTAA | TTTGTGTTG | CTTGATTGCT |
| brkSsim | TTG | CATA | GCTTATGCTG | CAACTTCTAT | TGATAACTAA | TTTGTGTTG | CTTGATTGCT |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | TTATTCCATA | CTTGTTGTAC | TTGTGAGCCT | GAATGACCAA | ACGATTCTCT | CTCTAGAGAG | AAAGAGAGGG |
| brkSyak | CCA | CTTG | GAAG | ----- | ----- | ----- | ----- |

1611

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|---------|------------|------------|------------|------------|------------|------------|------------|
| brkSana | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSere | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSgri | CGAGAGAGAG | AGAGAGAGAG | AGGGAATGTT | GGCTGTAAAG | GATTTTAGCC | GCTATAAGAA | TGCCAATGTC |
| brkSmel | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmoj | GGGGAGAGAG | AGAGACCGAG | AGTGAGAGAG | CGACAAAGAC | TGAGC | GCTAAGGATG | CTGC |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsim | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | AGGGA | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSyak | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

1681

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|---------|-----------|-----------|------------|------------|------------|------------|------------|
| brkSana | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSere | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSgri | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmel | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmoj | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | TTTGTAAAT | TATATATAT | ATTTTATTTA | TTTTTCCAAG | GATCAACTTG | GAGCTCTTTA | ATGCGGCTAA |
| brkSsim | TTTGT | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | TTTGTCCAG | GGGATA | ----- | ----- | ----- | ----- | ----- |
| brkSyak | CAAT | ----- | ----- | ----- | ----- | ----- | ----- |

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|---------|------------|-------------|-----------|------------|------------|-------------|------------|
| brkSana | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSere | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSgri | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmel | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmoj | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | TTTAAATTGT | AAAATGCCCTT | AGTGTTCTA | TTTTGGTTTT | TAGACAAACA | AAAAATATTAT | CGATCATTGC |
| brkSsim | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSyak | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

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|---------|------------|------------|------------|------------|-------------|------------|------------|
| brkSana | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSere | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSgri | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmel | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmoj | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | TAAGACTGCA | AAAGGCAGTT | TATGAACATA | ATCGATCTTC | ATAAAAATTTA | ATGTGATTAT | TTAAAGTACA |
| brkSsim | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSyak | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

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|---------|------------|-----------|------------|------------|------------|------------|
| brkSana | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSere | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSgri | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmel | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmoj | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | AAGGATTGTA | CCGGTTCAC | GAGTCCAGGA | ATACAACAAA | GTCAITAITC | CAGTCCTTTC |
| brkSsim | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSyak | ----- | ----- | ----- | ----- | ----- | ----- |

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|---------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| brkSana | - | - | - | - | - | - | - |
| brkSere | - | - | - | - | - | - | - |
| brkSgri | - | - | - | - | - | - | - |
| brkSmel | - | - | - | - | - | - | - |
| brkSmoj | - | - | - | - | - | - | - |
| brkSper | - | - | - | - | - | - | - |
| brkSpse | - | - | - | - | - | - | - |
| brkSsec | A C A T G T T C C A | T A C C A A C G A A | T A A C C C C A A T | C A C A C A T A A G | T C A A C G A T T T | T T T A A A G C A T | A C A C A T T T T T |
| brkSsim | - | - | - | - | - | - | - |
| brkSvir | - | - | - | - | - | - | - |
| brkSwil | - | - | - | - | - | - | - |
| brkSyak | - | - | - | - | - | - | - |

| | | | | | | | |
|---------|------------|-----------|-----------|------------|------------|------------|-----------|
| brkSana | - | - | - | - | - | - | - |
| brkSere | - | - | - | - | - | - | - |
| brkSgri | - | - | - | - | - | - | - |
| brkSmel | - | - | - | - | - | - | - |
| brkSmoj | - | - | - | - | - | - | - |
| brkSper | - | - | - | - | - | - | - |
| brkSpse | - | - | - | - | - | - | - |
| brkSsec | GATGACCCGT | ACTTTCATT | GCTAAATGG | TACTTAACCA | TATATGAAAA | GATCACCAAT | CAATATTTA |
| brkSsim | - | - | - | - | - | - | - |
| brkSvir | - | - | - | - | - | - | - |
| brkSwil | - | - | - | - | - | - | - |
| brkSyak | - | - | - | - | - | - | - |

| | | | | | | | |
|---------|-------------|------------|------------|------------|------------|--------------|------------|
| brkSana | - | - | - | - | - | - | - |
| brkSere | - | - | - | - | - | GTTGTAAG | T |
| brkSgri | - | - | - | - | - | - | - |
| brkSmel | - | - | - | - | - | GTATAA | T |
| brkSmoj | - | - | - | - | - | - | - |
| brkSper | - | - | - | - | - | - | - |
| brkSpse | - | - | - | - | - | - | - |
| brkSsec | TATTTTATTAA | ATGAGACAGC | GGTCATGTGA | AGCCTACATA | TGCAAGTACC | TATATTTATATA | TGAATGAGAT |
| brkSsim | - | - | - | - | - | GTATAA | T |
| brkSvir | - | - | - | - | - | - | - |
| brkSwil | - | - | - | - | - | - | - |
| brkSyak | - | - | - | - | - | - | - |

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|---------|------------|------------|------------|------------|------------|------------|------------|
| brkSana | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSere | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSgri | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmel | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSmoj | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | CAGCTAGCGA | TTACTTCACA | CTGATAAGGC | CGTATCTCAG | TCGCTTCTAT | ATGCCGCATA | AACAGCGCAT |
| brkSsim | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSyak | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

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|---------|---------------------|---------------------|---------------------|---------------------|---------------------|--|
| brkSana | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSere | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSgri | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSmel | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSmoj | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSper | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSpse | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSsec | C T G A T C A T G A | T A C A T T T G C G | G G C T A T A A A G | A T T A T G G C A A | T C G A A C C C A A | A A G A T G G G A G G G C G G G C T C T |
| brkSsim | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSvir | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSwil | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSyak | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |

[illegible]

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|---------|------------|------------|------------|-------------|------------|------------------------|
| brkSana | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSere | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - GTAGCAGGT TT |
| brkSgri | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSmel | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - GTATCAAGT GT |
| brkSmoj | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSper | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSpse | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSsec | TTTTCGGGCT | ACCTACCAAT | CGTGACAAAT | TTCCGTCAATT | TTAATTTTAG | CATAATAAAGT GTAATTATAG |
| brkSsim | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - GTATCAAGT CT |
| brkSvir | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSwil | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |
| brkSyak | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - | - - - - - |

2451

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|---------|------------|-------------|------------|------------|------------|-------|---------|------------|
| brkSana | ----- | ----- | ----- | ----- | ----- | ----- | C | ACAGCAAAAT |
| brkSere | ----- | ----- | ----- | ----- | ----- | ----- | GCTAAT | GTTGCAG-GT |
| brkSgri | ----- | ----- | ----- | ----- | ----- | ----- | AAAAATA | ATTGTGAGTG |
| brkSmel | ----- | ----- | ----- | ----- | ----- | ----- | ACTAAT | GTTGCAG-GT |
| brkSmoj | ----- | ----- | ----- | ----- | ----- | ----- | TATAAG | AATGCAAGCA |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | AACAGC | GATGCAACGT |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | AACAGC | GATGCAACGT |
| brkSsec | ATTGCCGATT | GCCAAATCGCC | CGGTGGGTTA | AAACTAAGCG | TTACGGACAA | AGGC | ACTAAT | GTTGCAG-GG |
| brkSsim | ----- | ----- | ----- | ----- | ----- | ----- | ACTAAT | GTTGCAG-TT |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | TTTGAA | AGAACGAAAC |
| brkSwil | ----- | ----- | ----- | ----- | ----- | ----- | CAGAGC | GACAGAGATC |
| brkSyak | ----- | ----- | ----- | ----- | ----- | ----- | CAGAGC | GACAGAGATC |

2521

| | | | | | | | | |
|---------|------------|------------|------------|-----------|------------|------------|------------|------------|
| brkSana | GCT | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSere | GCTGCATAAT | CCATTTACTT | TCTCAA | G | TCTGTACTTT | ACTG | ----- | ----- |
| brkSgri | GCTGCG--GC | TAATTGATAG | CCGGCAA | A | TCCCTCAGCG | AGCGTTACTA | ATGCCCATAC | ATATGGTATA |
| brkSmel | GCTGCG | CATGCATAT | GTTGCAA | G | TCTGTGTTT | ATTGTAATGT | ACC | ----- |
| brkSmoj | AATG | ----- | TTTGAGA | G | GCTGCGGCTA | ATTG | ATAG | CTGCTGCTGC |
| brkSper | GCT | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | GCT | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | GCTGCG | CCTGCATAT | GTTGCAA | G | TCTGTGCGGT | ATTGTATTGC | ACCTATGTTT | CTGTAGTTTT |
| brkSsim | GCTGCG | CCTGCATAT | GTTGCAA | G | TCTGTGCGGT | ATTGTAGTGT | ACCTATAG | CTGGAGTTTC |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | GAAGAGAAAA | GAATAAACCT | GCCTAGACTG | ACTGTTGCC | GCTGCTGCC | GGGGGGGGGG | CCCTTTGTGT | ----- |
| brkSyak | CCTGTGTGT | GCGTCCATAT | GTTCAT | G | CAGGTGGGT | ATTT | ----- | ----- |

2591

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|---------|-------------|------------|------------|------------|------------|------------|------------|-------|
| brkSana | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSere | CA-AAAAGCTG | CATATGCTC | T | ----- | ----- | ----- | T | ----- |
| brkSgri | TCTACTTATA | TACATATACA | TATATATATA | CAATATATAT | ATGGTACTCA | A | ----- | ----- |
| brkSmel | CATAAAACTG | CATATA | TTTATACA | TA | ----- | G | GTGT | ----- |
| brkSmoj | CCCATATCTC | TAC | TATATACA | CATGTAATA | TATATTCTTG | GTGTGGTATA | TATGTATGTG | ----- |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | CATAAAAGCTG | CATAGAT | TTTATACA | TAGGTGTGCA | ATTCTGATGG | GTGT | ----- | ----- |
| brkSsim | CATGAAACTG | CATATATGC | TGCATACA | TAGGTGTGCA | ATGCTGATGG | GTGT | ----- | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | AACCAATACA | CACACACACA | CACACACACA | CACATACAAA | CATATAGGAA | AAAT | ----- | ----- |
| brkSyak | CCCAGGTG | TCCCTACCGA | TCCCTATCCT | CAT | ----- | ----- | ----- | ----- |

2661

| | | | | | | | | |
|---------|------------|------------|------------|------------|------------|-------|-------------|-------------|
| brkSana | ----- | ----- | ----- | ----- | ----- | C | TAAGTATCTA | CTACTTAC |
| brkSere | ----- | ----- | ----- | ----- | ----- | T | TTAAATTTACC | TACGTTTCTG |
| brkSgri | CTCACCCG | CTTTGCGCAC | AGGTGTCGAT | AAATCGGCCA | TCAGATCGGC | ----- | CAGATTCTTC | TTTTGTCCGC |
| brkSmel | ----- | ----- | ----- | ----- | ----- | T | AGATTCTTA | CTATTATCGC |
| brkSmoj | CACTCACCTG | CTTTGCGCAC | AGGTGTCGAT | AAATCGGCCA | TCAGGTCGGC | ----- | CAGATTCTTC | TTTTGTCCAG |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | TATGCTGCTG | CTGCTGGTGT |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | TATGCTGCTG | CTGCTGACGC |
| brkSsec | ----- | ----- | ----- | ----- | ----- | T | TCAGATTACC | CATGTTTCTA |
| brkSsim | ----- | ----- | ----- | ----- | ----- | T | TTATATTACC | CAGGTTTCTA |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- | CTATTACCTGC |
| brkSwil | ----- | ----- | ----- | ----- | ----- | ----- | ----- | CTATTACCGC |
| brkSyak | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

2731

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|---------|-------------|------------|------------|------------|------------|------------|-------------|---------|
| brkSana | TAGTACTT | CTACTATTTT | TAATATA | ATAAGGTAA | CC | ----- | ----- | ----- |
| brkSere | AAC | ATACT | AAATAAT | ATAAAATA | ----- | ----- | ----- | ATATAC |
| brkSgri | TCTGGCTCAG | CGGCGTTATT | AGCTTCTGCA | TGTAGGTGAA | ATCCTATTGG | GAGCGTATCA | AAAAATGAAGT | ----- |
| brkSmel | TGAAAACTTG | TTTTTCTATT | CAATCTTGCT | CATAAAATGG | TTCAAAT | AT | ATATAG | ----- |
| brkSmoj | CTTCATTTCAG | CGGCGATATT | AACTTCTGCA | TGTACGTAAA | ATCCTATTCA | AAGAGATAGA | GAGAGGG | ----- |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | TTAAAACTTG | TTTTATATT | CAATCTTGCT | CATAAAATGA | GTCAAAT | ----- | ATA | TATATAG |
| brkSsim | TTAAAACTTG | TTTTATATT | CAATCTTGCT | CATAAAACGA | GTCAAAT | ----- | ATA | AATATAG |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | ----- | TTTTTTTTTT | CAAAGACATT | GATGAAATGA | AGAATGATTG | CCAGTTGGTG | CCGCAGG | ----- |
| brkSyak | TTTGGCTACA | GTGCACTCTA | GAGTGCAATA | GTGCACCCTA | GTGCGCTGGC | CAAGGTGTGA | AATCTTT | ----- |

2801

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|---------|------------|------------|------------|------------|--------------|-------------|-------------|-------------|------------|
| brkSana | ----- | ----- | A | TTTGGTGCAG | TCGCGACTTA | ATGCGCCCAA | AATGGCTGAT | T | AGACTTTAAT |
| brkSere | ----- | ----- | A | TTTAAATGCC | ACAGCAAGCA | ACAGCTGTTG | CAAGGATCTT | TCATTTCAAA | |
| brkSgri | ACAATTAAAC | GGCAACATCA | A | TTTGGTGCAG | TCCCGACTTA | ATTCTTCCAA | AATGGCTGTT | TCGATTAAAT | |
| brkSmel | ----- | ----- | A | GAGGGAGAGG | GGAGAGCATT | ATCTTC | ---TATATCTT | AAATTTCAAA | |
| brkSmoj | ----- | ----- | A | ----- | ----- | ----- | ----- | CAGTTTAAAT | |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | |
| brkSsec | ----- | ----- | A | TTTG | ---CCCGACTTA | ATTCTTCCAA | AATGGCTGTT | AAATTTCAAA | |
| brkSsim | ----- | ----- | A | TTTGGTGCAG | TCCCGACTTA | ATTCTTCCAA | AATGGCTGTT | AAATTTCAAA | |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | |
| brkSwil | -----G | CGGATCTTCA | TTTTTGGGAT | CAGTTTTTCA | GTTTCGCTTCG | GTTTCGTTTGT | GTTTCGTTTGT | GTTTCGTTTGT | |
| brkSyak | ----- | ----- | A | TTTGCATGCT | TATGGCCGGC | CTTCTC | ----- | T | GCACGAACGG |

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|---------|------------|------------|------------|------------|------------|------------|------------|-------|-------|-------------|
| brkSana | ----- | ----- | ----- | GTAT | TGC | ----- | TTT | ----- | T | CGTTG |
| brkSere | ----- | ----- | ----- | CTAT | TGCCATCTG | GTGT | ----- | ----- | T | CGTTTAAATC |
| brkSgri | ----- | ----- | ----- | GTTC | CGCGTGTGC | ATGCCACCGG | CTTTAATGGC | ----- | ----- | ACTCTCAATTT |
| brkSmel | ----- | ----- | ----- | CTAT | TGCCCATGTT | GTTC | ----- | ----- | T | CGTTTAAATC |
| brkSmoj | ----- | ----- | ----- | ATGC | TGCACGTGCC | AGATAGGGCT | TAGACAACGT | ----- | ----- | CAATTTAGAT |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | ----- | ----- | ----- | CTAT | TGCCCATGTT | GTTC | ----- | ----- | T | CGTTTAAATC |
| brkSsim | ----- | ----- | ----- | CTAT | TGCCCATGTT | GTTC | ----- | ----- | T | CGTTTAAATC |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | AGAAAAATAA | ATAAGTCAGC | TAGCCGCCGT | TGCCGCCGCC | AT | ----- | ----- | G | ----- | CACCTGGCCT |
| brkSyak | ----- | ----- | CGAT | GATCCTAGGG | AATT | ----- | ----- | T | ----- | CCCATTTCGAA |

2941

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|---------|------------|------------|------------|-----------|-----------|-------|-------|-------|-------|
| brkSana | GTGTAAAGCT | G | ----- | CTGCTGTGA | TGTTTTTT | ----- | ----- | ----- | ----- |
| brkSere | GCTTATGGTT | T | ----- | TTCCGATGT | TATCTTTTC | ----- | ----- | ----- | ----- |
| brkSgri | AGATATGCTT | CTAATTGGGC | ATTTGAGTGC | CAACTGTA | ----- | ----- | ----- | ----- | ----- |
| brkSmel | GCTTATGGTT | T | ----- | TTCCGATGT | TGTTTTTC | ----- | ----- | ----- | ----- |
| brkSmoj | ATGCCACAAT | C | ----- | TACATATAA | TGGTTC | ----- | ----- | ----- | ----- |
| brkSper | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSpse | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSsec | GCTTATGGTT | T | ----- | TTCCGATGT | TGTTTTTC | ----- | ----- | ----- | ----- |
| brkSsim | GCTTATGGTT | T | ----- | TTCCGATGT | TGTTTTTC | ----- | ----- | ----- | ----- |
| brkSvir | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| brkSwil | GGCCAGACTG | A | ----- | CTGGCACCT | TTTCTTGT | TCG | ----- | ----- | ----- |
| brkSyak | AGGTGAGACA | T | ----- | TTCCAACGA | TTT | ----- | ----- | ----- | ----- |