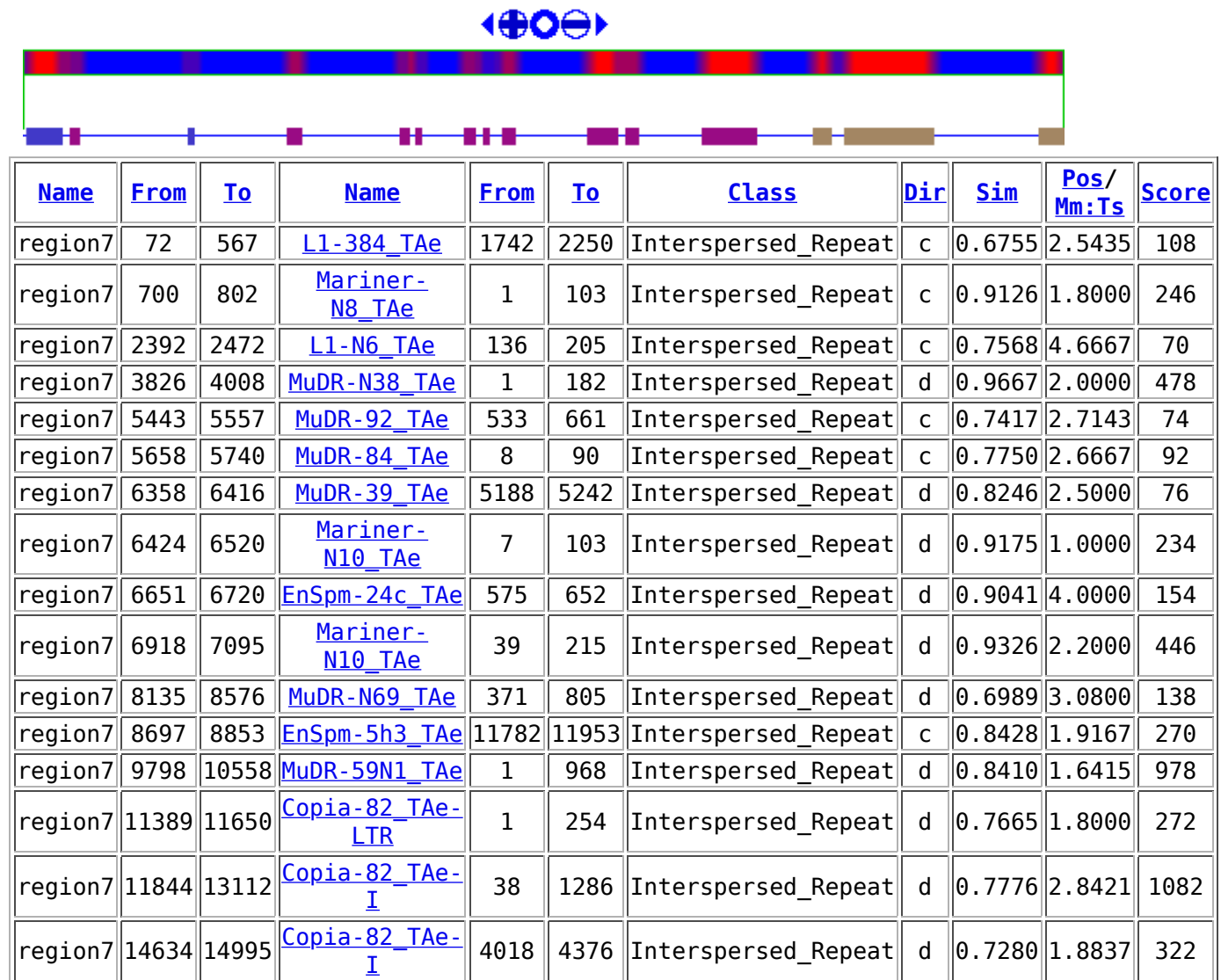


Map of Hits

SVG viewer is required to view graphical representation of the map as Scalable Vector Graphics (SVG plot).

region7 ([SVG Plot](#); [Alignments](#); [Masked](#))



Masked Sequence

[illegible]

GTGACCTCCACGGCGAAAATTAACAGCGCTAGAATTATTTTCTTCGCGACGAAGCATCTGCCTCGTTTT
ATGTCGCTGATGCCCTGCTAACTTGTTCGTACCAATTTTTCACAGCAGCCTGCGGTGCGAGTCGAGAGAT
GGAAGCCCCTGACCAGGTAATCAATGAATCCTTTCTCGGTCCCTTTATCGGTTCTGTTTAGATTTTAATC
TGGAACAGATGGCAAACCTTCTGAAGATTGCAATTTTGTGTTTCATCAGCGGTGATGATGTTTCCATTT
GTTTGTGATGCGTAGGAGAATCCTTGCGCCATCTGCCTCGGCGGCATGGCCGCCGGCGGGCAGGCC
ACCTTCACGGCGGAGTGCTCCACACCTTCCACTTCAACTGCATCTCCGCCAGCGTCGCGCACGGCCACC
TCGTGCGCCGCTGCGAACGCGCGCTGGCAGAGCTGCCCTTCTGCGACCCACCGCGCGGTGCCGCA
GCCGCTACGCTGCCTAGGCTGGGTCTGCCGTTCCCATGCACGGCGTGACGCTCCGAGCGAGCCGACA
GCATCGCTCCTCTCATGCATGGCGGGATGCCTCCGTTCCAGCGCAGGCGCCACCGCGCCGCGCGGGC
ATATCATGCAGCATCACCAGCCGCCGCCGGAACGTGCATGTCGTGCAGCATCATCAGCCGCCGCCGCC
CGTGATACCGTGACGATCATCAGCCCCCGCCGCCGAGCCTACGGTCGTCTTCGACGACGACGAGCAG
GTGGAGCCGGCCTCCAGGCCGCCAGCTGACAGCACACCGGCAGCTGCATCGAACGGGGCAGTGGTCGTCA
ACACGCACGCCGAGTACTCGGCCGTGCGCAGGGACTCGTCCAGCGACAACCTTCGCCGTGCTCGTGACGT
CAAGGCTCCCGCATGGCCGACACCGTGGCGGCCGGCAGCGACAAGCCGCCCCCGCGCGCGCGCTGGAC
CTCGTGACCGTGCTCGAGCTCAGCGGCAGCATGAGCGGCCACAACTGGCGCTCCTGAAGCAGGCCATGC
GGTTCGTGATCGACAACCTCGGCCCAACGACCGCCTCTCCGTCTGTCTCTTCTCCTCCGAGGCGCGCG
GCTGACCAAGCTACCGCGCATGTGCGACGCGGGAAGGCACTGGCGGTGAGCGCGGTGGAGTCCCTCGCG
GCGCGCGCGGXXXXXXGCTCCTCTCCGACGGTCAGGATACCTATACCATGATGAGGCGCGGGG
XXXXXXGCTCCTCTCCGACGGTCAGGATACCTATACCATGATGAGGCGCGGGG
ACCGTCCGGCGTCCAGGCCAACAACTACGAGGAGCTCGTCCGCCCTCCTTCGACGCGACGGCGCTGAC
GGCGAGTGGTCCGCGCCGATCCACACCTTCGGTTCGGGAACGACCACGCGCGCGCGATGCAGTCA
TCGCCGAGGCGACGGCGCGCACGTTCTCGTTTCATCGAGAAGAGGCTGTGATACAGGACGCGTTCGCGCA
GTGCATCGGCGGCCCTGCTCTCCGTCTGTGTCAGAGGCGCGCATCGCCGTGCGTGCCTGACCCCGG
GTCCGTGTCTCTCCGTCAAGTCCGGCGTTACGAGAGCGCGTCGACGAGGACGGTGCGCCGATCTG
TCCGAGTCGGGAGCTCTACGCCGACGAGGAGAGGCGTTTCTTGCTCTTCTGACCGTGCCAAGAGTCGA
AGCGACGGACGGCGACCACTGCTCTTTCGAGAGTGGTCTTCAGCTACAGAAACCGGCGAGCGCGCG
GAGGTGAGCGTGACGGCCGAGGACACGGTGGTGGCGAGGCGGAGCAGCGCGGAGCGCTCGGAGCGT
CAGTGGAGGTGGAGCGGAGCGCGTCCGGTGGAGGCGGAGAGACATCGCGCGCGGAGGCGAGCGGC
GGAGCGGGCGAGCACAGGAAGCGGTGGAGATCCTCGACAACCGTCAGCGGGCGCTGGAGCAGTCGGAG
GCGGCAGGGGACGGCGACCCCATGATCGTGGCGCTGGGGCGGAGCTGCAGGAGATGCGCGGGCGCGTGT
CGAACCGCGAGAGTACATGCGGTGGGGCGGGCGTACATGCTGGCCGGCATGAGCGCGCACAGCAGCA
ACGCGCCACCTCCAGGCAGATGCTGGAGCCGAGGAGCAGCAGAGCTCGATGATGGCGAGGAATAGTGA
GTGAGGAGGATGATCAGAAGAGGAGTGGGGTCGAGCGCGGGGATATATGGCGGCAGCGCGCCCCGTGG
CCGAGGCGTGAACGAGGCGACGATGTCTGACGCGACGCCGGCCATGCGCGCCATGCTGCTGCGCTCGCG
GGAGGCGCGTGGGGCGTCCGCCGAGCAAGGGCAGCAGGAGGAGCAGCAGCCATGGCCGGAAGACGAT
GCCGGAGGCTCGGGCCGAAGGACGTGAACCAATAGCCATTATGCATACGAAATGGAGTACGAACTGTAA
TTTGAACGCTGTTTGGACTTGAATACTTTTATTGCTTATTTAGTGGGACAAATTCGGTGATTATTTCT
TTGTGTAACGACTTCTAGAGCATCTAGAGATCATAACGAAAXXXXXXXXXXXXXXXXXXXXXXXXXX
XX
XX
XXXXXXXXXXXXXXXXXXXXXXXXATCACGAAACATTGTTACGGTATCCCGTAATCAATGTTTGGGGAAAAGA
ATCCTATACGACCGCGTATTCTTCGATCTGGAGACCACTCAATTAAGGGAAACGTTTAACGCTGGCTA
ACCGGCTTAACCTTGAGCCGGTCTGCCGACATGGCCCTGGGCCACGTTGTGCGCGCTGCCACA
TATACGCCCTCGTGTGCTACTGCTTCTTTGCTTGTCCATTGCTCGTTGACTAGGCCACTATGCCCATACC
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GCACCGCTGGATACATTTACGTCTCGCGTTTTTCGTTGTGAATCTGGTGTGCGGGGTGCGGGGCGCCG
ACGGCAGCTGGCCGAGCGGGGAGCTTCGAGCGTGAGGCTACAATGCTGCAATCGGCGAGATGCGGGG
CGACCAGCTGCGCGGCGAGGTGCGGCTGCAACCGCTATGCGTGGAGCTGGAACCGGCACGCGGCC
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GCCACCGTGGCCAAAAGGTACAACCATCTATGTCGATGGATGTAACCAGCGGTTACCAATGCTACAAC
CCCGTCTCGGCACTGTGGCGACATGCACACCGCGCATGCTACGACGGCAAGACAAGGTGCTACTACCGA
CAAGTTTTTTTGTGGAACCGATGGCCAATCTTGTGGAAGTACCGACACAGAAGCTGCAATGGTGATT
CGCCGATGCTGCGTGACGCGCATCATGTGCTGGAAGCGACGAGCAATTTTGTGGAAGCCGCTGGCCA
TTTTGCTGGGAACAGCAAGCCTTTTTGCTAGGACGGTGGAGCGCGAGCTACAACCATTTGTTCCGGCGA
CGGCGTTGTGATTTTGTACAACCGACAATGAGAAAGCTACAACCGGCGCCTGGATTTGCTGCATCCGGT
GAAGTGGCGGGCGACGGCAGCTCTGCGTTTTGCTGCAAACGGCAACCAGAAAGCTTCACTGGCGACC
GCATATGCTACAGCCAGGGGATGACGGTGAAGTGTGGCGGCGGCAACGGTGAGCTACAACACCTTATT
TCTTGCTGCAACCGTGTGATCTGGATTGCTGGATCGGCTGACTTGGTTTGTGGAACGAGCTACTCCGGA
GCCGACGGGGGCGGAGACGCTGACGCGATCGAGGCGAGATGGAAGCAGGGCTACTCGGGAGCGAAGGC
GATGAGCCGACGGGGGCGGAGCCACGTGCGGGCACCAAGGTGAGATGGAAGCGGGGCTGCTCGGTCT
CGGGAGCGAAGGCAGCAAGCGGCGGGGGGCGAAGACGACGTGCGGGCACXXXXXXXXXXXXXXXXXX
XX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXCGGTATGTCGCTCGTCCATGGCAGTTCTCGTTCTGCTCTCC
CAATTTTCAGATTCACGGGCAAAAGCGAAAAAGAAACAGTACAACGGGGACATTGGATXXXXXXXXXXXX
XX
AGCGCCCTCAATTAAGTGACACCTGGCAATGCGAATCTTAATGCGAGCTTCTTCTTCCCCACGCTTG
CCATGAATTGAAACGACCGGGTGCCATTCCATACCGCCGAGGAGCCGACCTCTGGCCGTCAGGCTGC
TTGCCCATCCGTGCGCGCAGAACTTCTGACGCGCGGACACAAGCAGCGGCTCTCCCGCCGGCCGATGC
CATGTCTCTGACGCGCGGACATCTGCTGCTGCGCGCGGCGTAACCTCACTGCTCGCGGCTCTCTCG
TTTTCTTGAACAGATCAGTCTTGAAAAATCCATCAGTCATGACGTACAACAATGTTGTTGGCTGCCG

[illegible]

Local Alignments*

567 ggcattattacttaagttg - acaatataggagacatttgttttggggagggaaagatttggaaagaa- 501

1742 ggcatcatcaagcaa-ttggacgaat-tatgagacaatgcctttggagagggaa---ttcggatacccc 1806

500 -ag--aatcctcccttg--gcggcaacatgggagctaataatgtaaacttaaagagcggggtggattaggg 436
 -||--||||-||--|||-----||||| :||:| ||:|:|:|:|:| | :||| | | :||

1807 taggcaatc-tc--ttgctgcg-----tgggacttggctgcagacctaaggagaaaggtggtttgggt 1867

435 atcctcaatttacag-ttatgaacaatag--tctgctgcgaagatgtccataagtcttcaatcatca 369
 :|: |:|||:|:||| -|| ||| ||| :|--||| | --||| ||:||||| ||||| |

1868 gttgttaatctgcagcttcagaatcaagggtcttatt--aagcaccttcataagtcttcaataaagc 1935

368 tgatataccatggggccacttggcttggaagcatactatgccaat-----gtgcaacatgttgatcag 305
 ||||| |||| : |||| | |||:| ||||| |---|-----|| | ||| |:-| -| |

1936 tgatataccttgggtatccttgttgtggaattcatactatg---atggagtagtcccacaag-cca-ctg 2000

304 -cctgctgctgttctttttgggtggagagattgtc-tcagactaatttctatctaaaaa--acatggcca 239
 -||| - ||-|| :||:||||| ||||:||| -|:|-| -||-----||| | ||| |:-| -| |

2001 tcct-mtg-tggctccttttgggtggaaga-tatcttca----aat---tagctgacaattacaggcca 2060

238 -a--ctgcactgtgtctta-----cctccgttcaattctggactgatacttga-----atggt- 188
 -|-|| :| | | -|-|----- :|| ||| :||| | ||||:|||||-----| ||| -

2061 tagcctcgggttttgggt-taataagggggttcggttttgttctggtctgatgcttgaaactggatggtt 2129

187 ----ca-gccttataactcaaatgtgcctcatctgcac-----tcctt-tgccaaggctgatcaaatt 131
 ----|-| |||| | ||||-----| ||| -|-||-----|:||| -|||: || ||| |:|:

2130 ctaccatgcctttgagacaaa---gactc--c--cacggttattttcttatgctctggatgataagatc 2191

130 tctattagccag---ttatgg--agccaggat-gatttatcagattttttccatctacctctctc 72
 |||:|-| | |---||| |---|:||||| -|| :|-|---| ||||| | |:|| | |||

2192 tctgt--ggctgattttattgacagtcaggatagagct-tc---tttttccagctgcctatctc 2250

Name	From	To	Name	From	To	Dir	Sim	Pos/Mm:Ts	Score
region7	700	802	Mariner-N8_TAe	1	103	c	0.9126	1.8000	246

802 ctccctccgttcggaattacttgtcgtagaaatggatgtatgtagacattttttagttctagatacatcc 733
 ||||| ||||| |||||:||||| |||||:| ||||| ||||| |||||

1 ctccctccgttcggaattacttgtcgcagaaatggatgtatctagacgtatttttagttctagatacatcc 70

732 atttttgcgacaagtaattcgaacggaggag 700
 ||||:| ||||| ||||| :||| |||||

71 atttccgagacaagtaattccgaacggaggag 103

Name	From	To	Name	From	To	Dir	Sim	Pos/Mm:Ts	Score
region7	2392	2472	L1-N6_TAe	136	205	c	0.7568	4.6667	70

2472 acgacgttgagacggcggttctgtgccggcgctcgtcgagcaccttggcggccgtgcggagcccctcgg 2403
 |||:| ||| |: ||| |||-----| ||| -|| ||:| ||| ||| ||||| |||||

136 acggcgttgccggggccttc-----ctctc-tcctgcgcatggggcggtgcggagccccgcgg 196

2402 cgatgttggtg 2392
 ||-||-|||

197 cg-tg-tggtg 205

Name	From	To	Name	From	To	Dir	Sim	Pos/Mm:Ts	Score
region7	3826	4008	MuDR-N38_TAe	1	182	d	0.9667	2.0000	478

3826 ggggtgtgtctaggtctcagtcgacttagacttaacgaagtctcactcaaatgatatagtatagagaaga 3895
 ||||| ||||| ||||| ||||| ||||| |||||:||||| ||||| ||||| |||||

1 ggggtgtgtctaggtctcagtcgacttagacttaaccaagtctcactcaagtgatatagtatagagaaga 70

3896 a----aaaaaactgaaaagaaatttttgtacgaatcttaatgcaagatcaatggaatataacatcgactc 3961
 |----| ||||| |||||:||||| ||||| ||||| ||||| ||||| ||||| |-----|

71 aaaagaaaaaactgaaaggaaatttttgtacgaatcttaatgcaagatcaatggaatataaca-----tc 135

3962 gactgagacataacgaagtctaagtcgactgagacgtagcaaaactg 4008

|||||

Name	From	To	Name	From	To	Dir	Sim	Pos/Mm:Ts	Score
region7	5443	5557	MuDR-92_TAe	533	661	c	0.7417	2.7143	74

5557 gcgctgaagctcgccgatctccgcccttctcttgctcgccaccgctc-gccgcatctccgcccttgc- 5490
|||:||| ||-| || | :|| ||| |||:||-||-|-||:| ||||-| ||| ||-||||||| :||-
533 gcgccgacgc-ctcccgccctgcgcacctcc--gc-c-ccgagctccgaagcctc-cgccccgcgca 596

5489 ---cggtctgccgc-----cttcctcccagcagc--c-cc-----acttccatcttgctc 5443
---| :|||||||-----|||||||||||||||---|-|-|-----|||:|||||-|| |||
597 cctccactgcgcgagctccggcttcctcccagcagcatcgccacatgactcccatc-tgactc 661

Name	From	To	Name	From	To	Dir	Sim	Pos/Mm:Ts	Score
region7	5658	5740	MuDR-84_TAe	8	90	c	0.7750	2.6667	92

```

5740 gataggcgccggcgcgccggcctaattctttcggcgggtcagcgctcaccggtccgatacaaaacttttta- 5672
    ||| |||||:|||||:|: || |||||: |||: | |||||:|----- |||-
    8 gatctgcgccggcgccacggcgccaacggttgggcgggtcagagccgaaccgtccgatgc-----ggttag 72

5671 ----aaccgtcagatctg 5658
    ----|||||
    73 cgccaaccgtcagatctg 90

```

Name	From	To	Name	From	To	Dir	Sim	Pos/Mm:Ts	Score
region7	6358	6416	MuDR-39_TaE	5188	5242	d	0.8246	2.5000	76

6358 ttgaaacatcaagttcacccgat-aaatca-tcat-catacaagcattgttcataaataaaa 6416
||:||||| | ||| -|| |||-||| -||| ---||:||||
5188 ttaaaacatcaagatcaccagatcaattcattcatacatacaa--at----atagataaaa 5242

Name	From	To	Name	From	To	Dir	Sim	Pos/Mm:Ts	Score
region7	6918	7095	Mariner-N10_TAe	39	215	d	0.9326	2.2000	446

```

6918 taggtcgtcaatttaaccaacctaatataagtcatatattacaaaaaatataccaacataaaacttcagag 6987
      |||||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
39 taggtcgtcaatttgaccaacctaatataagtcatatattacaaaaaatataccaatataaaacttcagat 108

6988 tttctactttcaaaagatatTTTTTgtgtgttatatagtttatattagggtgataaaattggcaaccta 7057
      |||||:|||||:||| ||||-|||||:|||||:|||||:|||||:|||||:|||||:|||||:
109 gttctatTTTcaaaaggatataatttt-tgtgttatatagtttatattagggtgataaaattgacaaccta 177

7058 ggtatacgcgcatgacttgtaaactgaaacggaggtag 7095
      ||||||| ||||||| ||||||| ||||||| ||
178 ggtatacgcgaggacttgtaaactgaaacggaggaggag 215

```

Name	From	To	Name	From	To	Dir	Sim	Pos/Mm:Ts	Score
region7	6424	6520	Mariner-N10_TAe	7	103	d	0.9175	1.0000	234

```

6424 ctctctcagtttacaggcatacgcataccacctaaagtcgtcaatttgatcaacctaataacaagtcata 6493
      |||||||||||||||:||||:||||:|||||:|||||||||||||:|||||||||||||
7    ctctctcagtttacagggcgctgcggtaccctaggtcgtcaatttgaccaacctaataacaagtcata 76

6494 tcacaaaaaatataccaacataaaactt 6520
      |:|||||||||||||:|||||||
77   ttacaaaaaatataccaatataaaactt 103

```

Name	From	To	Name	From	To	Dir	Sim	Pos/Mm:Ts	Score
----------------------	----------------------	--------------------	----------------------	----------------------	--------------------	---------------------	---------------------	---------------------------	-----------------------

[illegible]


```

11524 ggggcacggagtagcagggttca--tcaccgccactg-ttccccactcctaaccctatccgatccagaggg 11590
      |||||: :|||||||||||-- |:|||||--| -:|||||: || |||: |||||:| |----
137  ggggcacacggtacgaggttcaccgcgcgcga--gactccccaccgatatccccttccgatctag---- 200

11591 aggcact-gaagcg--atgggaagctccaccgtgccactcatgcacttcaccgtcgacctct 11650
      -||| | -| ||:|--- |:|||||---| |||||-----| ||:| |:| | |||:| |||
201  -ggcaatcgcaqtctcacgggaag---caccactgccac-----ctctccatc-tcgatctct 254

```

[illegible]

```

    ||:|||||-----|||---||-|||||  |||||----- |||---|||
900 agagcaggccgtgggccg-ctttcctt-cgctgcgggcctcgcgccaggccgacgcaggggctcagct 967

12766 gc-gttttc--tattttgttttttagt-tttttgttcaggttttgggcagattt-cagatag-attttct 12829
    ||-|||||---||| | : |||:|---:|||||:| :|||||-----||-|||--- |||||
968 gctgttttctgtatataaaatttcagtgcttttgtccatattttgggcagatttaca-atagttttttct 1036

12830 atgcaattttttcaaacgaaaattttgtttagaaaatagaaaagttaacagaaaaagtttctgaaaatg 12899
    :|||||----- |||||---|||||-----|||-----|||-----|||-----|||
1037 gtgcaattttttccaacgaaaa-tttgtttagaaaatagaaaagttaacagaaaaagtttctgaaaatg 1105

12900 aaaatagaaaattttcagaaaaagaaatgttcatgaa-ttttataaagaaaaataataaagttcatgaatt 12968
    |||||-----|||-----|||-----|||-----|||-----|||-----|||
1106 aaaatagaaaattttcagaaaaagaaatgttcatgaatttttataaagaaaaataataaagttcatgaa-t 1174

12969 ttttatttgggtcaaagaaaagtttctgtaaagaataagaagtcctatgaatttttattcatgttttccgct 13038
    |||||-----||:||||| |||||-----||:|||||:|||||-----|||-----|||
1175 tttta-----aaggaaaagattctgtaaagaattaaagttcatgaa---tat-----tttccgct 1228

13039 gcaaaaaataaataaagaaaagtgctctttta-aaagaaaaataaaattcttatgaatagaatattgttaa 13107
    ||-: ||||| |||-----|||-----||-|||-----||-|||---|||---|||---|
1229 gc-gtaaataattaa-----tgctcttttacacag-aaaataaaagt-ttat--atag--tatt---a 1281

13108 agttt 13112
    |||||
1282 agttt 1286

```

Name	From	To	Name	From	To	Dir	Sim	Pos/Mm:Ts	Score
region7	14634	14995	Copia-82_TAE-I	4018	4376	d	0.7280	1.8837	322

```

14634 agaa-gtgccagttacgtgagacac--agatgggtct-caaggaatgagaaaatcagatacttctgattact 14699
    ||||-||||| | ||||:| |--|| ||||---|||---| :|||||:|||| ||:||||: | |||
4018 agaatgtgcagaaactgaggcccttagaagggtctacaag-accaagaaagtcagctatttctactgact 4086

14700 ataaagtctatatttagtgaaat--tcaaattggaggttgatccacctcatttaaagcgctcaatcgagt 14766
    |||||:|||| :| |||||---|| ||||: : |||||-----|| | |---
4087 ttaaagtttataacacagaaatggttcatatggaanaagatccacctcatatgaag-----aagcca-- 4149

14767 tttgagaagtg-tc-ttcttatctaaatg-ataagagactatatgagatgaaatgaaattgggtgaattct 14833
    --||||||: -||-|||---|| ||:|---||:|---|| ||: :|||:|:|||||:|:|:|:|:|
4150 --tgagaagccctcattc--atcgaagtggatga-aggcaatggaagacgagatgaaatcgatgagttcc 4214

14834 gacgatgttcgggactcacgagtaatttcc-aatggagccaaaacagtaggctgtaaa-gagtcctacaag 14901
    :| |||||:|||||:|---|| || ||||---|| | |||||-----||:||||||:|
4215 aaagatgtttgggactta-gaggaaattcctaaaggagccaaaacagtaggctgtaaatgggtctacaaa 4283

14902 gacaa-tgtgactccaaaggaaatatgtaaagggtgtaaacacgactaaaatcgaaagggtttttgcgcac 14970
    : :||-||:|||||:|||||:|||||: |||:|:|||||:||||| : : ||:|--- |||:|---
4284 attaagtatgactctaaagggaatatagaaaagtataaagcacgactcgtggcaaaagg-atttacaca- 4351

14971 tttacaccgaatagattacaatgag 14995
    | | | :|||||-----|||
4352 aagagaagggatagattacaatgag 4376

```

Masked Regions

```

>region7 FRAGMENT 567 -> 72
GGCATTATTACTTAAGTTGACAAATATAGGAGACATTTGTTTTGGGGAGGGAAAGATTTGGAAAGAAAGA
ATCCTCCCTTGGCGGCAACATGGGAGCTAATATGTAACCTTAAAGAGCGGGTGGATTAGGGATCCTCAA
TTTACAGTTATGAAACAATAGTCTGCTGCGAAGATGCTCCATAAGTTCTTCAATCATCATGATATACCAT
GGGGCCACTTGGTCTGGGAAGCATACTATGCCAATGTGCAACATGTTGATCAGCCTGCTGCTGCTCTTT
TTGGTGAGAGATTGTCTCAGACTAATTTCTATCTAAAAACATGGCCAACTGCACTGTGCTCTACCTCC
GTTCAATTCTGGACTGATACTTGAATGGTCAGCCTTATACTCAAATTTGGCCTCATCTGCACTCCTTTG
CCAAGGCTGATCAAATTTCTATTAGCCAGTTATGGAGCCAGGATGATTTATCAGATTTTTTCCATCTACC
TCTCTC

```

>region7 FRAGMENT 802 -> 700
CTCCCTCCGTTCCGGAATTACTTGTCTGTAGAAATGGATGTATGTAGACATTTTTTAGTTCTAGATACATCC
ATTTTTGCGACAAGTAATTCGAAACGGAGGGAG
>region7 FRAGMENT 2472 -> 2392
ACGACGCTGGAGACGGCGTTCTGTGCCGGCGCTCGTCGAGCACCTTGGCGGCCGTGCGGAGCCCCCTCGG
CGATGTTGGTG
>region7 FRAGMENT 3826 -> 4008
GGGTGTGTCTAGGTCTCAGTCGACTTAGACTTAACGAAGTCTCACTCAAATGATATAGTATATGAGAAGA
AAAAAACTGAAAAGAAATTTTTGTACGAATCTTAATGCAAGATCAATGGAATATAACATCGACTCGACT
GAGACATAACGAAGTCTAAGTCGACTGAGACGTAGCAAACTG
>region7 FRAGMENT 5557 -> 5443
GCGTCGAAGCTCGCCGGATCTCCGCCCTTCTTGTCTGCCACCGCTCGCCGCATCTCCGCCCTTGTCCG
GCTCGCCGCTTCCCTCCCGAGCAGCCCCACTTCCATCTTGCCTC
>region7 FRAGMENT 5740 -> 5658
GATAGCGCGCGCGCGCCTAATCTTTCGGCCGGTCACGCCTCACCCGTCCGATACAACTTTTTAA
ACCGTCAGATCTG
>region7 FRAGMENT 6358 -> 6416
TTGAAACATCAAGTTCACCCGATAAATCATCATACAAGCATTGTTCAATAAATAAA
>region7 FRAGMENT 6424 -> 6520
CTCTCTCAGTTTACAAGGCATACGCATACCCCTAAGTCGTCAATTTGATCAACCTAATACAAGTCATATA
TCACAAAAAATATACCAACATAAACTT
>region7 FRAGMENT 6651 -> 6720
GTGAGCCTCTTGTTCTTATCTTCTTCTGAAATAAAAGAATTCTATTTTAGATAGATACTTGTCTAATT
>region7 FRAGMENT 6918 -> 7095
TAGGTCTCAATTTAACCAACCTAATACAAGTCATATATTACAAAAATATACCAACATAAACTTCAGAG
TTTCTACTTTCAAAGATATTTTTTGTGTGTTATATAGTTTATATTAGGGTGATAAAATTGGCAACCTA
GGTATACGCGCATGACTTGTAACCTGAAACGGAGGTAG
>region7 FRAGMENT 8135 -> 8576
CGTGAACACTTTTTGGAAGAACGTGAACATTTAGAAAAACACGTGGCACATCAAGAAAACATAATTATTTT
TATAGTAATATGGAACGCTTCTCTAATTATGTGAAGATTTAAAAAAGCAAACACTTTTTAATTACAGG
AATATTTGACACATATATAACACTTTCTCAAAATTTCTGAAGGTTATTTGAATGTAGAACACTTTCTA
CTATAGCAGGAACATTTTTTTCGGATATGAAAGCTTTTTCAAACCTACCTGAATGTTTTCCCAAATAAGC
ATTTTTTAACATTTTCGATGACACTATTTTAATTTTATGTACAATTTCTAAAAATGTACAAATATTTATGA
AATAGGTAAATATGTTTTCAAATACCCTGAACATTTTATCTAAAATAAGTAAATAAATTTAGAATTTCC
GTGCCATTTTATTTCTTTCAA
>region7 FRAGMENT 8853 -> 8697
TACTCCCTTGTTCTCTAAATATAAGTCTTTTTAGAGATTCTAATAGAACTACATACAGAACAAAATGAC
TGAATCTACCTATATACATCCGCAGTACTCCTTATTGAAATCTCTAAAAAGACTTATATTTAAAAACGG
AGGGAGTACTACTTTAG
>region7 FRAGMENT 9798 -> 10558
CGAAATTACTAATTGAGGAGTACTCTTGCAAAGATCACTCCACCTCCTCAGGCTGTCACAGTGGCGCG
CTGCATGTGCGCCACTTGTCAACCTGTGAGCTTTTTTTTTTTCGTAGATCCGTTTATTCAAACATTT
TATATTTTAAACCATGCGTCCAAATCTCGAACCCTTTTACCCTGGAATTCCTCGCGTCAAGATCTTCAA
AACTAGATCCCATGTTGGAAGGTTTTGACGAACTTTTTTTACGAAAAAACCGGACGAAAAAACTGAACT
GGAAGCATGGTTTCTTTCCCATTTCCGAAAGAGGCACGGCCGTGCCTCTCGCGGAAGGAAAAAACTGGA
ATTTTTTTTTCTGATTCCGAGAGGCACGAGAGGCACGGCCGTGCCTCTCGCAGAAGCAAAATCGTACTTC
TCGTGGAAGCAAAAAATATAGAAAACACGCTTTTTTTTTCATTTACGAGAGGCACGTCCGTGCCTTTT
CGAAAGCACCACCTGCGTCTCGCGAAGCAAAACCGTGCCTCTCGCGGAAGGAAAAAAATGTTAGAAA
ACACGTTTTTTCTTTTCGTTTTTGAGAGACGGGGCGTGCCTCTTGGGAAAAAAAACAGAAAAAATTT
TTTTTCGTTTTCGAAACGTGTTTTTTAGCACAAATTTTTTTTCGAATTTTTTTGTTTCGTCCAAATCT
AAAAAAGGCCGTTGAAACCAAAAAGTCAAAAACCCCGGTAAAAAACCGTTTAAAAAGC
>region7 FRAGMENT 11389 -> 11650
TGTTAGGTTGATCTCTCCACCAATGGGCCAACGGCTCATTGGGCACCTTGACCACGCCCTGATCGGGGG
CGTCCAGCCCAAGCAAGGCTGGTGGGCCCCGTGTCGCGCAGTGCTATAAAGAGGAGGTGGGGACCAGGGGC
ACGGAGTACGAGGTTTCATACCCGCCACTGTTCCCCACTCCTAACCTATCCGATCCAGAGGGAGGCACTG
AAGCGATGGGAAGCTCCACCGTGCCACTCATGCACCTTACCCTCGACCTCT
>region7 FRAGMENT 11844 -> 13112
AAAAGAGAAAAAGAAACGAACACAATACGATTTTCGATCTCGGATCGAAGCAGATAGAGAGAAAAAGAACT
CCTCGTCGGAAGTTGCGCGCGCGCAACGGCCGCGCGTCTCTCGATCCGGACGGGCATCGGCAAGC
CGAGCCGTTTCGGAAGAAGAACTACCCCCACAGGGGCAAGGGCACACCACAGAGCCATTTGACGGCGAC
GCGTTACCCCTCGAGGTGCTCGCGCACGCCGGCAAAGGGGTACGCGGGGGCGCCGCATCTGGAACCGCC
GTCGCTCGCGCAAGGGGAGCAGAGGAGGCTCTGCTCGCGCTGCTCGCTCCCTCTCGCGTGGGGTGGT
GGTGAAGAAGAGAGGGAAGGGGAACGGCTCGCGCGGCGCAGTGCCCTCGCCGCCGAGCACGGGGCCG
GAGCGGCTACCAGGGCGCTGCCCTTTTTACCTTGACAGAGAGGGAGCCGACGGGACAGAAGAAGAGAAA
GAAGAAGGGAAAGGGGGAAGAAAGAGAACGGCCAGGCTCGCGCGGTGGTGGACGCCGTGCGCGGCGGCTC
GACCGGACAGGCACGGCGCGGCGCGGAGCACGGCGCGGTGCGCGGCGACCGGGACATCGTCGGGCGAGA
GACGAGAGGATGAGAGTTTGACCCGAGCTGGTGGGTGGGATAGTTTGTATCCAGCAAAAATAATGGTGA
GTCGTCGATCGCGTTCAACGGCTGAGTCAAAACCTAGCTGCAACGGGCTTTTCGGGCGCAAGTGC
AGGCGGGCAGCAGCCCGGGCGCCTGTGCTGGCGGAGGACACAGCCGCGGGCGGCCAGGCCGGGT
CGAGGCATTTTCGCGAGGCACGGCGCGCAGGGCAGGCCGTGGGCCGACTTTTTCCGCTGCGGGCCGAGCGC

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GCTGGGCCAGCTGCGTTTTCTATTTTGTGTTTTAGTTTTTTGTTTCAGGTTTTGGGCAGATTTTCAGATAGA
TTTTCTATGCAATTTTTTCAAACGAAAAATTTTTGTTTAGAAAAATAGAAAAGTTAACAGAAAAAGTTTCTG
AAAATGAAAAATAGAAAAATTTTCAGAAAAAGAAATGTTTCATGAATTTTATAAAGAAAAATAATAAAGTTTCAT
GAATTTTTTATTTGGTCAAAGAAAAGTTTCTGTAAAGAATAAGAAGTCCATGAATTTTTATTCATGTTTT
CCGCTGCAAAAAATAAATAAAGAAAAGTGCTCTTTTAAAAGAAAAATAAAATTCTTATGAATAGAATATT
GTAAAGTTT
>region7 FRAGMENT 14634 -> 14995
AGAAGTGCCAGTACCTGAGACACAGATGGTCTCAAGGAATGAGAAAATCAGATACTTCTGATTACTATAA
AGTCTATATTAGTGAAATTCAAATGGAGGTTGATCCACCTCATTTAAAGCGCTCAATCGAGTTTTGAGA
AGTGTCTTCTTATCTAAATGATAAGAGACTATATGAGATGAAATGAAATTGGTGAATTCTGACGATGTTT
GGGACTCACGAGTAATTTCCAATGGAGCCAAAACAGTAGGCTGTAAAGAGTCTACAAGGACAATGTGACT
CCAAAGGAAATATGTAAAGGTGTAAAACACGACTAAAATCGAAAGGTTTTTGCGCATTTTACACCGAATA
GATTACAATGAG
```

Annotation of Repbase Sequences

```
ID  Copia-82_TAe-I rebase;      DNA;      PLN; 5877 BP.
XX
AC  .
XX
DT  24-APR-2023 (Rel. 28.08, Created)
DT  24-APR-2023 (Rel. 28.08, Last updated, Version 1)
XX
DE  LTR retrotransposon from common wheat: internal portion
DE  consensus.
XX
KW  Copia; LTR Retrotransposon; Transposable Element; Copia-82_TAe-I;
KW  autonomous.
XX
OS  Triticum aestivum
OC  Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC  Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC  BOP clade; Pooideae; Triticoideae; Triticeae; Triticinae; Triticum.
XX
RN  [1]
RP  1-5877
RA  Bao W.;
RT  "LTR retrotransposons from wheat.";
RL  Repbase Reports 23(8), 5447-5447 (2023).
XX
DR  [1] (Consensus)
XX
CC  ~95% identical to consensus.
XX
SQ  Sequence 5877 BP; 1859 A; 1141 C; 1440 G; 1432 T; 5 other;

//
ID  Copia-82_TAe-LTR rebase;    DNA;      PLN; 368 BP.
XX
AC  .
XX
DT  24-APR-2023 (Rel. 28.08, Created)
DT  24-APR-2023 (Rel. 28.08, Last updated, Version 1)
XX
DE  LTR retrotransposon from common wheat: long terminal repeat
DE  consensus.
XX
KW  Copia; LTR Retrotransposon; Transposable Element;
KW  Copia-82_TAe-LTR; autonomous.
XX
OS  Triticum aestivum
OC  Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC  Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC  BOP clade; Pooideae; Triticoideae; Triticeae; Triticinae; Triticum.
XX
RN  [1]
RP  1-368
RA  Bao W.;
RT  "LTR retrotransposons from wheat.";
```

```

RL   Repbase Reports 23(8), 5534-5534 (2023).
XX
DR   [1] (Consensus)
XX
CC   ~95% identical to consensus.
XX
SQ   Sequence 368 BP; 73 A; 125 C; 97 G; 73 T; 0 other;

//
ID   EnSpm-24c_TAe repbase;      DNA;      PLN; 12587 BP.
XX
AC   .
XX
DT   26-APR-2023 (Rel. 29.04, Created)
DT   26-APR-2023 (Rel. 29.04, Last updated, Version 1)
XX
DE   DNA transposon from Triticum aestivum, consensus.
XX
KW   EnSpm/CACTA; DNA transposon; Transposable Element; EnSpm-24c_TAe.
XX
OS   Triticum aestivum
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC   BOP clade; Pooideae; Triticoideae; Triticeae; Triticinae; Triticum.
XX
RN   [1]
RP   1-12587
RA   Bao W.;
RT   "DNA transposons from wheat.";
RL   Repbase Reports 24(4), 2131-2131 (2024).
XX
DR   [1] (Consensus)
XX
CC   ~92% identical to consensus.
XX
SQ   Sequence 12587 BP; 3450 A; 2860 C; 3132 G; 3108 T; 37 other;

//
ID   EnSpm-5h3_TAe repbase;      DNA;      PLN; 24019 BP.
XX
AC   .
XX
DT   24-FEB-2023 (Rel. 29.04, Created)
DT   26-JUL-2023 (Rel. 29.04, Last updated, Version 1)
XX
DE   DNA transposon from Triticum aestivum, consensus.
XX
KW   EnSpm/CACTA; DNA transposon; Transposable Element; Nonautonomous;
KW   EnSpm-5h3_TAe.
XX
OS   Triticum aestivum
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC   BOP clade; Pooideae; Triticoideae; Triticeae; Triticinae; Triticum.
XX
RN   [1]
RP   1-24019
RA   Bao W.;
RT   "DNA transposons from wheat.";
RL   Repbase Reports 24(4), 2116-2116 (2024).
XX
DR   [1] (Consensus)
XX
CC   >97% identical to consensus.
XX
SQ   Sequence 24019 BP; 6142 A; 5676 C; 6022 G; 6150 T; 29 other;

//
ID   L1-384_TAe repbase;      DNA;      PLN; 3050 BP.
XX

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AC .
XX
DT 18-MAY-2023 (Rel. 28.11, Created)
DT 29-JUN-2023 (Rel. 28.11, Last updated, Version 1)
XX
DE Non-LTR retrotransposon from common wheat: consensus.
XX
KW L1; Non-LTR Retrotransposon; Transposable Element; L1-384_TAe;
KW autonomous.
XX
OS Triticum aestivum
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC BOP clade; Pooideae; Triticoideae; Triticeae; Triticinae; Triticum.
XX
RN [1]
RP 1-3050
RA Bao W.;
RT "Non-LTR retrotransposons from wheat.";
RL Repbase Reports 23(11), 7670-7670 (2023).
XX
DR [1] (Consensus)
XX
CC ~92% identical to consensus.
XX
SQ Sequence 3050 BP; 713 A; 647 C; 707 G; 964 T; 19 other;

//
ID L1-N6_TAe rebase; DNA; PLN; 1277 BP.
XX
AC .
XX
DT 18-MAY-2023 (Rel. 28.11, Created)
DT 21-JUL-2023 (Rel. 28.11, Last updated, Version 1)
XX
DE Non-LTR retrotransposon from common wheat: consensus.
XX
KW L1; Non-LTR Retrotransposon; Transposable Element; Nonautonomous;
KW L1-N6_TAe.
XX
OS Triticum aestivum
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC BOP clade; Pooideae; Triticoideae; Triticeae; Triticinae; Triticum.
XX
RN [1]
RP 1-1277
RA Bao W.;
RT "Non-LTR retrotransposons from wheat.";
RL Repbase Reports 23(11), 7505-7505 (2023).
XX
DR [1] (Consensus)
XX
CC ~94% identical to consensus.
XX
SQ Sequence 1277 BP; 191 A; 362 C; 458 G; 266 T; 0 other;

//
ID Mariner-N10_TAe rebase; DNA; PLN; 215 BP.
XX
AC .
XX
DT 24-FEB-2023 (Rel. 29.04, Created)
DT 24-FEB-2023 (Rel. 29.04, Last updated, Version 1)
XX
DE DNA transposon from Triticum aestivum; consensus.
XX
KW Mariner/Tc1; DNA transposon; Transposable Element; Nonautonomous;
KW Mariner-N10_TAe.
XX

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OS   Triticum aestivum
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC   BOP clade; Pooideae; Triticoideae; Triticeae; Triticinae; Triticum.
XX
RN   [1]
RP   1-215
RA   Bao W.;
RT   "DNA transposons from wheat.";
RL   Repbase Reports 24(4), 2108-2108 (2024).
XX
DR   [1] (Consensus)
XX
CC   >94% identical to consensus,.
XX
SQ   Sequence 215 BP; 70 A; 40 C; 39 G; 66 T; 0 other;

//
ID   Mariner-N8_TAe rebase;      DNA;      PLN; 103 BP.
XX
AC   .
XX
DT   24-FEB-2023 (Rel. 29.04, Created)
DT   24-FEB-2023 (Rel. 29.04, Last updated, Version 1)
XX
DE   DNA transposon from Triticum aestivum; consensus.
XX
KW   Mariner/Tc1; DNA transposon; Transposable Element; Nonautonomous;
KW   Mariner-N8_TAe.
XX
OS   Triticum aestivum
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC   BOP clade; Pooideae; Triticoideae; Triticeae; Triticinae; Triticum.
XX
RN   [1]
RP   1-103
RA   Bao W.;
RT   "DNA transposons from wheat.";
RL   Repbase Reports 24(4), 2140-2140 (2024).
XX
DR   [1] (Consensus)
XX
CC   >97% identical to consensus,.
XX
SQ   Sequence 103 BP; 28 A; 22 C; 23 G; 30 T; 0 other;

//
ID   MuDR-39_TAe rebase;      DNA;      PLN; 7806 BP.
XX
AC   .
XX
DT   13-APR-2023 (Rel. 29.01, Created)
DT   13-APR-2023 (Rel. 29.01, Last updated, Version 1)
XX
DE   DNA transposon from Triticum aestivum; consensus.
XX
KW   MuDR; DNA transposon; Transposable Element; MuDR-39_TAe;
KW   autonomous.
XX
OS   Triticum aestivum
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC   BOP clade; Pooideae; Triticoideae; Triticeae; Triticinae; Triticum.
XX
RN   [1]
RP   1-7806
RA   Bao W.;
RT   "DNA transposons from wheat.";
RL   Repbase Reports 24(1), 239-239 (2024).

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XX
DR [1] (Consensus)
XX
CC ~97% identical to consensus.
XX
FH Key Location/Qualifiers
FT CDS join(7436..7362,7116..6967,6696..6241,6111..6096,
FT 5784..5429)
FT /product="MuDR-39_TAe_2p"
FT /translation="MPSWNDGDESSDDSMGGNLMMEYFDTPTIPEPLWC
FT GAPMEEVAKCTLHDMKPRKCVAFEGANTGRRFYGCPVQGGVNCVQVWVDP
FT AWPDLVKNCLIKLWEMFHEQNLGRIQDKHAYEDEVAKLKKDYDHLCTEYHK
FT MVDDVSKMFDWQDGVGKIDYQKAMDAEFKQKEELELEMMEKLRLAKEQ
FT RCILQAQADIIHNTRKAMKEIKVDRDLAQEKTELEKALQDDVNPPIPTLL
FT HPPAAKETLESQGEMDPGEVIDGEEEVPRQARRRDARRRARRQLAEMILAA
FT RNRKDIEQFLEAFPLAPTLVMMISSTGQGGGQISIPFRSLGRGGLGFCTHD
FT AAVMFLCS"
FT CDS join(319..641,1010..2586,2665..2876,2964..3914,
FT 4000..4289,4741..5062)
FT /product="MuDR-39_TAe_1p"
FT /translation="MASAAAKPGDGGHSTGGGGRGDGGGEFSEVDNLGSG
FT SFATQPAAPPPQRTPTQAAALMQAPTQATPPSPDDCQFSLEYRAARSLAS
FT AVQADPANSQHWASAFGGVELDDEIWEVRLHFQGRDNMERRFSVSDITFLN
FT LIALTETEGYGSDDYMYWKEQGIGQEGFLLLDSQDAVEEMIDHSDFTVLN
FT IIVSKANEDRDVECNRAHNVCEEQIPIGSPVGGPGFVLSLSQDGVVHPLEV
FT NLNTQQSCNLNISEAHGGDDDGQAAGEEDDDIDKSSSDFEIDRGDYRGIM
FT SYKAWKRGEENIGNEEERDAVEDRPQFEGSDVSEFWQEEKEADSGEEIVV
FT ESKRPEKLKPVRRAAANPGPTSRHSQPEIPKFQDFVPEADEYCFPGDVGI
FT SDSGETPRLPSGRKRRLKKKKERKWDPKVPDAHEQLCKDLCFTNVYEFR
FT KALRNHFVRTLRNFQYHRNEPSRVIVWCPERKNGCEFFMTASKVAHEDTFT
FT IKKCHMDHSCGACGESTKVTAEWVAEVEDTVRSNVKADVETVLKHTKKKF
FT GVHVPRSLAYRARLMAVDVVQGDHRKQYLRLRDYLCVLDTNPGSRCIVTT
FT FEDPLNPAPTFRKYMFYCLQASKDGLAGCRPFIGLDGCFIKLSTGQQIL
FT AATGRDGNNNVFPFIAFGVVDKEDGPSWTWFLNQLRVCIGTSNQFGNYTIMS
FT DRQKGLLKAINVEFPQSPQRYCLRHIYANFQSAGFRAEELKKWVDKASYSF
FT TEHGHKEGMAGLKAACEPAYMWLNGIPKECWARYAMDHVCKTDLVVNNLSE
FT VFNKMILDVRSKPIKTMFEGRLTKLMVKYQGIREKTESCRWEITPHYMEKL
FT EESKKWAKYCEANMAGPNIWQVTSGENTYCVKLDEGSCSRRWDMTGSPCH
FT HAISAMQIKIVHPEDYVHPFFKKPMYKAAYQHIIYPVPGPEFWPNTNTPDI
FT EPPVFREKKGKKQTARRKGEFEVPAPKDTSRMGITITCSNGLQGHRWTMCG
FT DRLKAKFMTRKNNHQENRASYPATSAPTRPPPARATSSGPAPASGPAPASG
FT PVRGRKPATASTRATTSASTRATTSTAVSTGGSRRKKNXPASAPANNTRS
FT SASSPAKNTRSLWXATCRPTPKVASCRPTPKGAKCGHFGWLLVDQPQKWL
FT VDQPPKWPNLATLGGXLSTNPKVATFGHFGGLLVDQPQKWLVDQPQRPNL
FT ATLGGLYSTNPKVAI"
XX
SQ Sequence 7806 BP; 2259 A; 1750 C; 1791 G; 2003 T; 3 other;

//
ID MuDR-59N1_TAe repbase; DNA; PLN; 1112 BP.
XX
AC .
XX
DT 18-MAY-2023 (Rel. 29.01, Created)
DT 18-MAY-2023 (Rel. 29.01, Last updated, Version 1)
XX
DE Nonautonomous DNA transposon from Triticum aestivum; consensus.
XX
KW MuDR; DNA transposon; Transposable Element; Nonautonomous;
KW MuDR-59N1_TAe.
XX
OS Triticum aestivum
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC BOP clade; Pooideae; Triticoideae; Triticeae; Triticinae; Triticum.
XX
RN [1]
RP 1-1112
RA Bao W.;
RT "DNA transposons from wheat.";

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RL  Rebase Reports 24(1), 165-165 (2024).
XX
DR  [1] (Consensus)
XX
CC  ~94% identical to consensus. 9-bp TSDs. 14-bp subterminal TIRs.
CC  Termini are similar to those of MuDR-59_TAe (consisting of 3
CC  segments: MuDR-59P1_TAe, MuDR-59P2_TAe and MuDR-59P3_TAe).
XX
SQ  Sequence 1112 BP; 346 A; 285 C; 251 G; 230 T; 0 other;

//
ID  MuDR-84_TAe rebase;      DNA;      PLN; 9933 BP.
XX
AC  .
XX
DT  27-JUN-2023 (Rel. 29.01, Created)
DT  27-JUN-2023 (Rel. 29.01, Last updated, Version 1)
XX
DE  DNA transposon from Triticum aestivum; consensus.
XX
KW  MuDR; DNA transposon; Transposable Element; MuDR-84_TAe;
KW  autonomous.
XX
OS  Triticum aestivum
OC  Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC  Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC  BOP clade; Pooideae; Triticoideae; Triticeae; Triticinae; Triticum.
XX
RN  [1]
RP  1-9933
RA  Bao W.;
RT  "DNA transposons from wheat.";
RL  Rebase Reports 24(1), 193-193 (2024).
XX
DR  [1] (Consensus)
XX
CC  ~98% identical to consensus. 9-bp TSDs.
XX
FH  Key          Location/Qualifiers
FT  CDS          join(357..509,880..2597,2714..3620)
FT              /product="MuDR-84_TAe_1p"
FT              /translation="MDLGSSSAAVHGRSPLRRGDPGSSGPVLQRYYPNGVV
FT              FQDAARHGRDEIDLNVAVEPSIFLDDMQNVAHEEEYIGIDLNDTPQNDSD
FT              DSLQLNTDGVAPNHGNARVASDNANGNAATLVDEPDEDISSQPVPFVGMV
FT              FDNVEEAQRVYNEYASKMGFGTRIVTSKHSRKSSSDQKRILYRVFECIHS
FT              RKNPSKNVGGISDGAATNECEDVMSYASNKKSPSKQAGIYMDVSDKRKR
FT              NRLERYDCKARMGVNLKDGSWVTVFEADHTHQLMLQGRRRFRCRSHRKIP
FT              DADMQYITSLHYRNISTANMMGLLGARCCDPRSLPYVKTDVTNARAKLRR
FT              GLSERDLELTIEYFERRQVENPNFFFSKLQEDGAVRALFWVDGRTRALYPK
FT              YKDCVFFDTTCTNRYNLPFAPIVGINNHTHTVCLGCALLPDETIETFKWV
FT              FQWMLAMNNEHPLNIMTDQDQAMATAISMVFPDSTHRCCKWHVFRVARTK
FT              LGRMLGKDEPF AEAFYGCINGSDTVEEFEERWKQMVELFGVADKKHLKNMW
FT              NSRETWAPVYFRNKFFPFTGTTGRSEGLNSYFKTLNHHGDSVWTFVQQFEL
FT              CQELMLDREDNAGFINEATRPLWGNYNIEKQAADFYTREVFSKFQKLLAK
FT              STGYGLQYQLQGNVWVRLVANDGINPKVYTVRVAPEDHTYMCSCNMFMFC
FT              GLICPHIIRVMVHLNVQAIPANYMLPRWSKRATDLAEPG DGHAMHFGVP
FT              TTNTLKFNSLCRKFGKLASDACFNDEAYSFVSGLIDQGSVGVA AIKARATD
FT              GVAGGEEAQGRAANEQVSGGPSTGQDDPPPVGLRNPPKSAKKGRPKEKEKR
FT              RKPLIELREDEMKKKAKKDAAKTKAPKPM EKKT PCKYCEDEDHNVKNCQL
FT              LAAFLAASASAKAPGVGPILT L"
XX
SQ  Sequence 9933 BP; 2928 A; 2126 C; 2293 G; 2585 T; 1 other;

//
ID  MuDR-92_TAe rebase;      DNA;      PLN; 4774 BP.
XX
AC  .
XX
DT  14-JUL-2023 (Rel. 29.01, Created)
DT  14-JUL-2023 (Rel. 29.01, Last updated, Version 1)

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XX
DE DNA transposon from Triticum aestivum; consensus.
XX
KW MuDR; DNA transposon; Transposable Element; MuDR-92_TAe;
KW autonomous.
XX
OS Triticum aestivum
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC BOP clade; Pooideae; Triticodae; Triticeae; Triticinae; Triticum.
XX
RN [1]
RP 1-4774
RA Bao W.;
RT "DNA transposons from wheat.";
RL Repbase Reports 24(1), 71-71 (2024).
XX
DR [1] (Consensus)
XX
CC ~98% identical to consensus. 9-bp TSDs.
XX
SQ Sequence 4774 BP; 1385 A; 974 C; 1131 G; 1284 T; 0 other;

//
ID MuDR-N38_TAe repbase; DNA; PLN; 182 BP.
XX
AC .
XX
DT 27-FEB-2023 (Rel. 29.01, Created)
DT 27-FEB-2023 (Rel. 29.01, Last updated, Version 1)
XX
DE Nonautonomous DNA transposon from Triticum aestivum; consensus.
XX
KW MuDR; DNA transposon; Transposable Element; Nonautonomous;
KW MuDR-N38_TAe.
XX
OS Triticum aestivum
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC BOP clade; Pooideae; Triticodae; Triticeae; Triticinae; Triticum.
XX
RN [1]
RP 1-182
RA Bao W.;
RT "DNA transposons from wheat.";
RL Repbase Reports 24(1), 112-112 (2024).
XX
DR [1] (Consensus)
XX
CC >97% identical to consensus. 9-bp TSDs.
XX
SQ Sequence 182 BP; 71 A; 28 C; 40 G; 43 T; 0 other;

//
ID MuDR-N69_TAe repbase; DNA; PLN; 1326 BP.
XX
AC .
XX
DT 02-MAY-2023 (Rel. 29.01, Created)
DT 25-JUL-2023 (Rel. 29.01, Last updated, Version 1)
XX
DE Nonautonomous DNA transposon from Triticum aestivum; consensus.
XX
KW MuDR; DNA transposon; Transposable Element; Nonautonomous;
KW MuDR-N69_TAe.
XX
OS Triticum aestivum
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliopsida; Liliopsida; Poales; Poaceae;
OC BOP clade; Pooideae; Triticodae; Triticeae; Triticinae; Triticum.

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XX
RN [1]
RP 1-1326
RA Bao W.;
RT "DNA transposons from wheat.";
RL Repbase Reports 24(1), 140-140 (2024).
XX
DR [1] (Consensus)
XX
CC ~93% identical to consensus. 9-bp TSDs.
XX
SQ Sequence 1326 BP; 346 A; 237 C; 216 G; 527 T; 0 other;

//

Summary Table

Repeat Class	Fragments	Length
Transposable Element	16	4718
DNA transposon	11	2248
EnSpm/CACTA	2	227
Mariner/Tc1	3	378
MuDR	6	1643
LTR Retrotransposon	3	1893
Copia	3	1893
Non-LTR Retrotransposon	2	577
L1	2	577
Total	16	4718

* alignment score for local alignment may not always be equal to alignment score in map of hits because of use of heuristics for stitching fragments reported in map section, and use of different [wu-blast](#) parameters on stage of search and stage of producing local alignments.
