

```

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 453 Spy49 1753c AC162003.1
NTDB id 408 SMU RS09530 WP 002262392.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 1211 C694 RS00795 WP 000963128.1
NTDB id 1334 RA0C RS04870 WP 004918236.1
NTDB id 1130 NGFG RS03960 WP 003688695.1
NTDB id 1124 NGFG RS03960 WP 003688695.1
NTDB id 1123 OK783 RS03845 WP 003688695.1
NTDB id 1427 RS RS02760 WP 011000510.1
NTDB id 1389 A4U84 RS07560 WP 021112712.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1165 A1552VC RS01565 WP 000344154.1
NTDB id 1142 GTF74 RS11550 WP 000344154.1
NTDB id 78282 FTPB0191 RS01220 WP 039103415.1
NTDB id 1205 PSJM300 05545 AFN77183.1

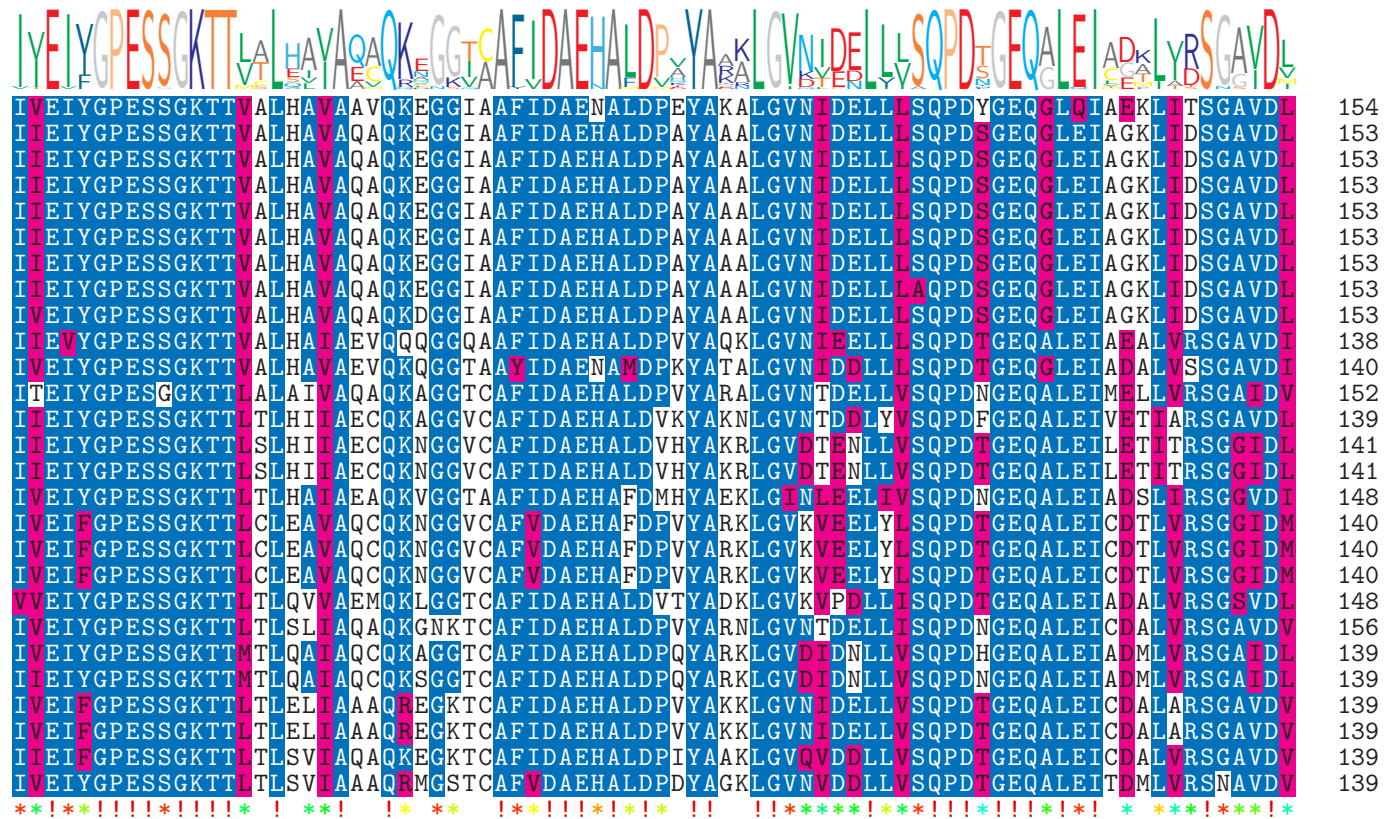
```

[illegible]

```

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 453 Spy49 1753c AC162003.1
NTDB id 408 SMU RS09530 WP 002262392.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 1211 C694 RS00795 WP 000963128.1
NTDB id 1334 RA0C RS04870 WP 004918236.1
NTDB id 1130 NGFG RS03960 WP 003688695.1
NTDB id 1124 NGFG RS03960 WP 003688695.1
NTDB id 1123 OK783 RS03845 WP 003688695.1
NTDB id 1427 RS RS02760 WP 011000510.1
NTDB id 1389 A4U84 RS07560 WP 021112712.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1165 A1552VC RS01565 WP 000344154.1
NTDB id 1142 GTF74 RS11550 WP 000344154.1
NTDB id 78282 FPB0191 RS01220 WP 039103415.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus

```



```

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 453 Spy49 1753c AC162003.1
NTDB id 408 SMU RS09530 WP 002262392.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 1211 C694 RS00795 WP 000963128.1
NTDB id 1334 RA0C RS04870 WP 004918236.1
NTDB id 1130 NGFG RS03960 WP 003688695.1
NTDB id 1124 NGFG RS03960 WP 003688695.1
NTDB id 1123 OK783 RS03845 WP 003688695.1
NTDB id 1427 RS RS02760 WP 011000510.1
NTDB id 1389 A4U84 RS07560 WP 021112712.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1165 A1552VC RS01565 WP 000344154.1
NTDB id 1142 GTF74 RS11550 WP 000344154.1
NTDB id 78282 FTPB0191 RS01220 WP 039103415.1
NTDB id 1205 PSJM300 05545 AFN77183.1

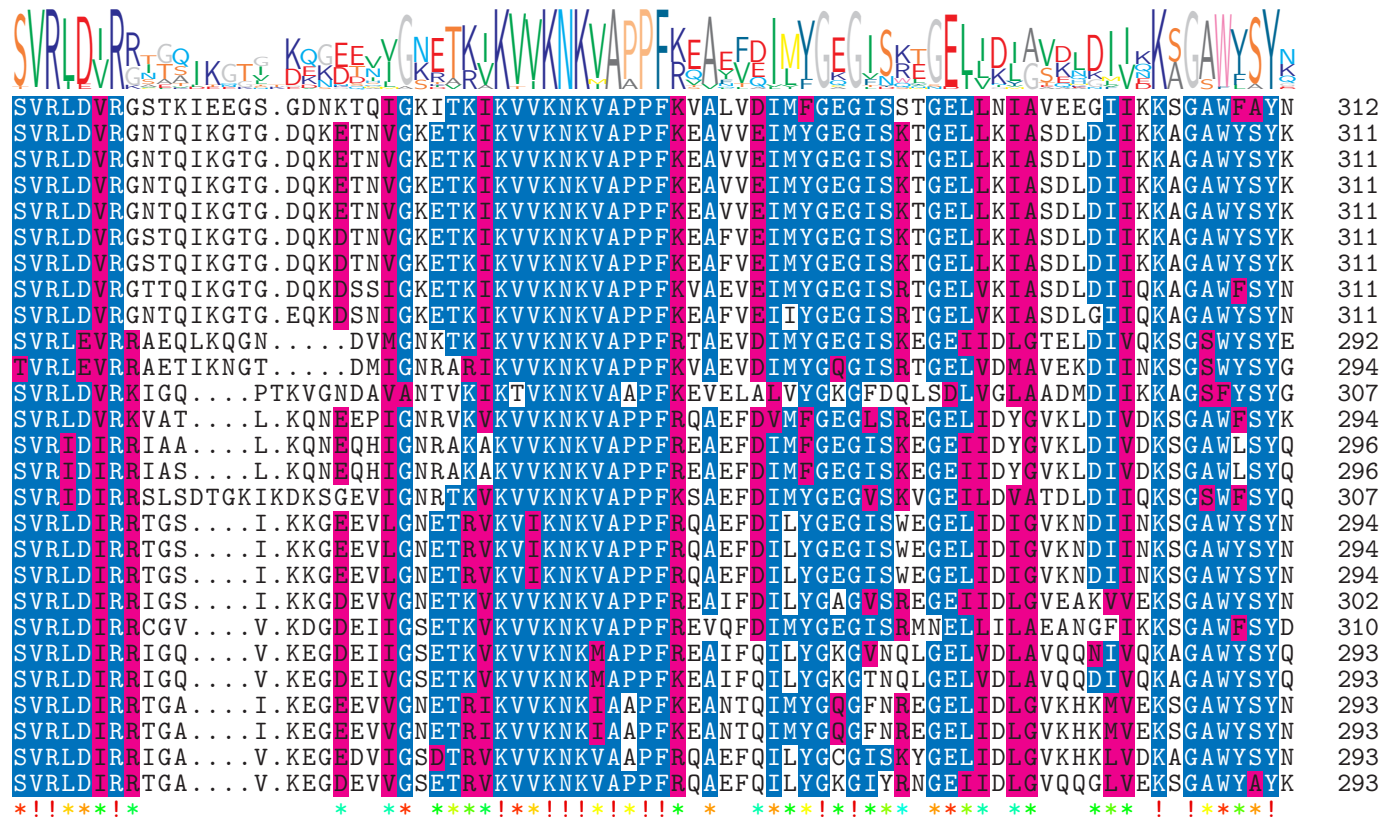
```

Sequence	Score
VV ¹ DSVAALVPKAEIDGEGDMSVGLQARMSQAMRKLAGHINKTKTIAIFINQIREKVGVMF ²³³ FGSPETTPGGRALKFYA	233
VVVD ² SAALVPRAEIDGDI ³ GDSHVGLQARMSQAMRKLAGSINKTKTIAIFINQIREKVGVMF ⁴ FGNPETTPGGRALKFYA	232
VVVD ⁵ SAALVPRAEIDGDI ⁶ GDSHVGLQARMSQAMRKLAGSINKTKTIAIFINQIREKVGVMF ⁷ FGNPETTPGGRALKFYA	232
VVVD ⁸ SAALVPRAEIDGDI ⁹ GDSHVGLQARMSQAMRKLAGSINKTKTIAIFINQIREKVGVMF ¹⁰ FGNPETTPGGRALKFYA	232
VVVD ¹¹ SAALVPRAEIDGDI ¹² GDSHVGLQARMSQAMRKLAGSINKTKTIAIFINQIREKVGVMF ¹³ FGNPETTPGGRALKFYA	232
VVVD ¹⁴ SAALVPRAEIDGDI ¹⁵ GDSHVGLQARMSQAMRKLAGSINKTKTIAIFINQIREKVGVMF ¹⁶ FGNPETTPGGRALKFYA	232
VVVD ¹⁷ SAALVPRAEIDGDI ¹⁸ GDSHVGLQARMSQAMRKLAGSINKTKTIAIFINQIREKVGVMF ¹⁹ FGNPETTPGGRALKFYA	232
VVVD ²⁰ SAALVPRAEIDGDI ²¹ GDSHVGLQARMSQAMRKLAGSINKTKTIAIFINQIREKVGVMF ²² FGNPETTPGGRALKFYA	232
VVVD ²³ SAALVPKAEIEGDMGDSHVGLQARMSQALRKLSGAINKSKTIAIFINQIREKVGVMF ²⁴ FGNPETTPGGRALKFYA	217
VVVD ²⁵ SAALVPRAEIEGEMGD ²⁶ AHVGLQARMSQALRKLSGTINKTKTIAIFINQIREKVGVMF ²⁷ FGNPETTPGGRALKFYA	219
VVVD ²⁸ SAALTPRAEIEGDMGDSL ²⁹ PLGLQARMSQALRKLTALISKTGTAAIFINQIREKVGVMF ³⁰ YGNPETTTGGRALKFYA	231
VVVD ³¹ SAALTPKAEIEGDMGDQ ³² HVGLQARMSQALRKLTGIVHKMNTTVIFINQIRMKIGMGYGPETTTGGRALKFYA	219
VVVD ³³ SAALTPKAEIEGDMGDQ ³⁴ HVGLQARMSHALRKITGV ³⁵ LHKMNTTVIFINQIRMKIGMGYGPETTTGGRALKFYA	221
VVVD ³⁶ SAALTPKAEIEGDMGDQ ³⁷ HVGLQARMSHALRKITGV ³⁸ LHKMNTTVIFINQIRMKIGMGYGPETTTGGRALKFYA	221
VVVD ³⁹ SAALTPKAEIEGDMGDS ⁴⁰ KMGLHARMSQALRKLTSSISKTKCTVIFINQIRDKIGVMFGSPETTTGGRALKFYA	227
VVVD ⁴¹ SAALVPKAEIEGDMGDSHVGLQARMSQALRKLTGH ⁴² IKKTNTLVVIFINQIRMKIGVMFGSPETTTGGRALKFYA	219
VVVD ⁴³ SAALVPKAEIEGDMGDSHVGLQARMSQALRKLTGH ⁴⁴ IKKTNTLVVIFINQIRMKIGVMFGSPETTTGGRALKFYA	219
VVVD ⁴⁵ SAALVPKAEIEGDMGDSHVGLQARMSQALRKLTGH ⁴⁶ IKKTNTLVVIFINQIRMKIGVMFGSPETTTGGRALKFYA	219
VV ⁴⁷ DSVAALVPKAEIEGEMGD ⁴⁸ ALPGLQARMSQALRKLTGTIKRTNCLVIFINQIRMKIGVMFGSPETTTGGRALKFYA	227
VV ⁴⁹ DSVAALTPKAEIEGDMGDSH ⁵⁰ MGLQARMSQALRKLTANIKNTNCLVIFINQIRMKIGVMFGNPETTTGGRALKFYA	235
VV ⁵¹ DSVAALTPKAEIEGEMGDSH ⁵² MGLQARMSQALRKITGNAKRSNCMVIFINQIRMKIGVMFGSPETTTGGRALKFYA	218
VV ⁵³ DSVAALTPKAEIEGEMGDSH ⁵⁴ MGLQARMSQALRKITGNAKRSNCMVIFINQIRMKIGVMFGSPETTTGGRALKFYA	218
VV ⁵⁵ DSVAALTPKAEIEGEMGDSH ⁵⁶ MGLQARMSQALRKITGN ⁵⁷ LKQSNCMCIFINQIRMKIGVMFGNPETTTGGRALKFYA	218
VV ⁵⁸ DSVAALTPKAEIEGEMGDSH ⁵⁹ MGLQARMSQALRKITGN ⁶⁰ LKQSNCMCIFINQIRMKIGVMFGNPETTTGGRALKFYA	218
VV ⁶¹ DSVAALTPRAEIEGEMGDSH ⁶² MGLQARMSQALRKLTANIKNANCLVIFINQIRMKIGVMFGNPETTTGGRALKFYA	218
VV ⁶³ DSVAALVPKAEIEGEMGD ⁶⁴ AHVGLQARMSQALRKITGNIKNANCLVIFINQIRMKIGVMFGSPETTTGGRALKFYA	218

```

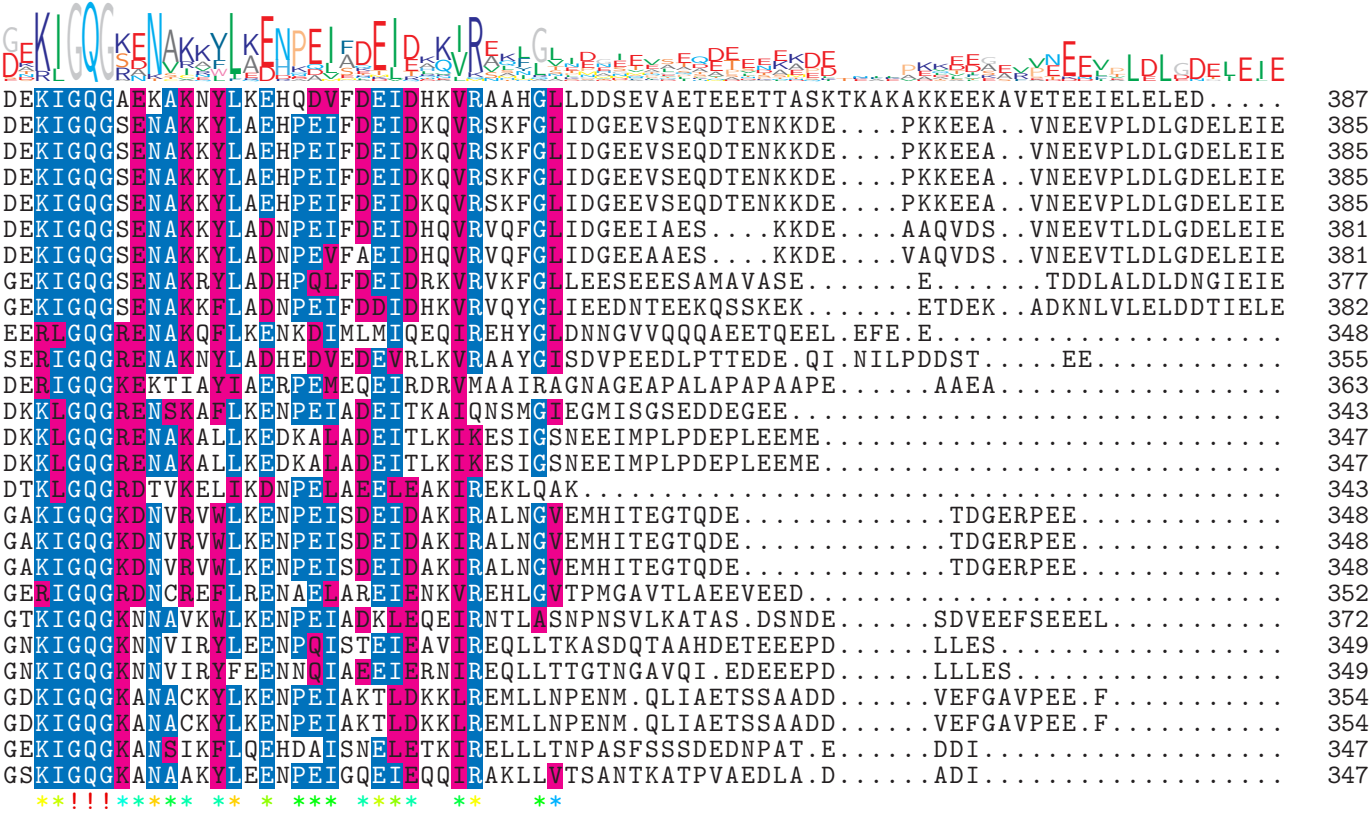
NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 408 SMU RS09530 WP 002262392.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 1211 C694 RS00795 WP 000963128.1
NTDB id 1334 RAOC RS04870 WP 004918236.1
NTDB id 1130 NGFG RS03960 WP 003688695.1
NTDB id 1124 NGFG RS03960 WP 003688695.1
NTDB id 1123 OK783 RS03845 WP 003688695.1
NTDB id 1427 RS RS02760 WP 011000510.1
NTDB id 1389 A4U84 RS07560 WP 021117212.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1165 A1552VC RS01565 WP 000344154.1
NTDB id 1142 GTF74 RS11550 WP 000344154.1
NTDB id 78282 FPB0191 RS01220 WP 039103415.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus

```



logo

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 408 SMU RS09530 WP 002262392.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 1211 C694 RS00795 WP 000963128.1
NTDB id 1334 RAOC RS04870 WP 004918236.1
NTDB id 1130 NGFG RS03960 WP 003688695.1
NTDB id 1124 NGFG RS03960 WP 003688695.1
NTDB id 1123 OK783 RS03845 WP 003688695.1
NTDB id 1427 RS RS02760 WP 011000510.1
NTDB id 1389 A4U84 RS07560 WP 021112712.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1165 A1552VC RS01565 WP 000344154.1
NTDB id 1142 GTF74 RS11550 WP 000344154.1
NTDB id 78282 FPB0191 RS01220 WP 039103415.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus



logo

		LEE	
NTDB id 600 KW2 RS01765 WP 011675413.1	...	387	
NTDB id 269 KZH43 RS08665 WP 001085462.1	IEE	388	
NTDB id 228 SPD RS09265 WP 001085462.1	IEE	388	
NTDB id 194 SPR RS08825 WP 001085462.1	IEE	388	
NTDB id 159 SP RS09750 WP 001085462.1	IEE	388	
NTDB id 499 SM12261 RS08315 WP 078228268.1	IEE	384	
NTDB id 527 SMSK321 RS11065 WP 001085454.1	IEE	384	
NTDB id 453 Spy49 1753c ACI62003.1	D..	378	
NTDB id 408 SMU RS09530 WP 002262392.1	D..	383	
NTDB id 115 BSU 16940 NP 389576.2	...	348	
NTDB id 625 LCA RS02525 WP 011374196.1	...	355	
NTDB id 1313 DR RS12030 WP 010888966.1	...	363	
NTDB id 1245 Cj1673c YP 002345041.1	...	343	
NTDB id 1214 NCTC11637 00359 SQJ03206.1	...	347	
NTDB id 1211 C694 RS00795 WP 000963128.1	...	347	
NTDB id 1334 RAOC RS04870 WP 004918236.1	...	343	
NTDB id 1130 NGFG RS03960 WP 003688695.1	...	348	
NTDB id 1124 NGFG RS03960 WP 003688695.1	...	348	
NTDB id 1123 OK783 RS03845 WP 003688695.1	...	348	
NTDB id 1427 RS RS02760 WP 011000510.1	...	352	
NTDB id 1389 A4U84 RS07560 WP 021112712.1	...	372	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	...	349	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	...	349	
NTDB id 1165 A1552VC RS01565 WP 000344154.1	...	354	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	...	354	
NTDB id 78282 FPB0191 RS01220 WP 039103415.1	...	347	
NTDB id 1205 PSJM300 05545 AFN77183.1	...	347	
consensus			

- non conserved
- similar
- ≥ 50% conserved