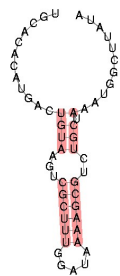


Comparison of the NMR derived reference Rfam structure of the UnaL2 LINE 3' element and predicted structures. Using the original hamming distance covariance scoring of `RNAalifold`, the stem is not correctly predicted.

Reference Structure of UnaL2 LINE 3' element



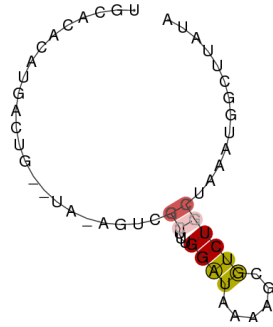
Reference Alignment of UnaL2 LINE 3' element

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Unal2 LINE 3' element NMR structure
AB179525.1/214-267
AB179524.1/3561-3614
AB179528.1/210-263
AB179527.1/188-241
AB179529.1/210-267
AB179529.1/214-267
AB179531.1/212-266
AB001852.1/99-152
AB001847.1/100-157
AB001853.1/99-152
AB001846.1/106-159
AB001847.1/106-159
AB001863.1/91-144
AB001864.1/79-132
AB001969.1/103-156
AB001969.1/103-143
AB001962.1/107-160
AB001861.1/126-179
AB001969.1/103-156
AB001841.1/106-159
AY548911.1/989-936
AB001889.1/249-302
AB001889.1/249-302
AB001892.1/155-208
AB001891.1/247-300
AB001892.1/155-208
AB001890.1/215-268
AB001849.1/107-160
AB001847.1/99-152
AB001849.1/99-152
NMR structure

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Structure using the original
RNAalifold



Alignment of UnaL2 LINE 3' element, original
RNAalifold structure

Anal2 LINE 3' element	original RNAlfold	prediction
AB179625.1/214-267	UGUAAAGAAUGUGUG..UA..AGUG..UCU	UAAAGAGC
AB179624.1/3561-3614	GAUAGUGACGACUUUUU..UA..CGUG..UCU	UAAAGAGC
AB179628.1/210-263	UGUAAAGAAAGUGUGUG..UA..AGUG..UCU	UAAAGAGC
AB179627.1/188-241	UGUAAAGAAAGUGUGUG..UA..AGUG..UCU	UAAAGAGC
AB179629.1/214-267	UGUAAAGAAAGUGUGUG..UA..AGUG..UCU	UAAAGAGC
AB179631.1/212-266	GUGUAAAGAAUGUGUG..UAAAGUG..UCU	UAAAGAGC
AB001852.1/99-152	UGCGGACCAIDAGCGU..UA..AGUG..UCU	UAAAGAGC
AB001843.1/99-152	UGCGGACCAIDAGCGU..UA..AGUG..UCU	UAAAGAGC
AB001853.1/99-152	UGCGAGGCAIDAGCGU..UA..AGUG..UCU	UAAAGAGC
AB001846.1/106-159	UGGACCAIDAGGACGU..UA..AAUG..UUU	UAAAGAGC
AB001847.1/106-159	UGGACCAIDAGGACGU..UA..AAUG..UUU	UAAAGAGC
AB001863.1/91-144	UCCACCAIDUGAAGUG..UA..AGUG..UUU	UAAAGAGC
AB001864.1/79-132	UGCGGACCAIDAGCGU..UA..AGUG..UUU	UAAAGAGC
AB001969.1/103-156	UGGACCAIDAGGACGU..UA..AGUG..UUU	UAAAGAGC
AB001970.1/103-156	UGGACCAIDAGGACGU..UA..AGUG..UUU	UAAAGAGC
AB001962.1/107-160	UGGACCAIDAGGACGU..UA..AGUG..UUU	UAAAGAGC
AB001861.1/126-179	GGCAGCAIDAGGACGU..UA..AGUG..UUU	UAAAGAGC
AB001861.1/71-130	UGGUGGUGGACGAGACGUA..AGUG..UUU	UAAAGAGC
AB001841.1/106-159	UGGACCAIDAGGACGU..UA..AGUG..UUU	UAAAGAGC
AT54889.1/989-936	AUUGCCACCAAUUUU..UA..AGUGUGUUU	UAAAGAGC
AB001289.1/249-302	AUUGCUUCCAUUUU..UA..AGUG..UUU	UAAAGAGC
AB001289.1/249-302	AUUGCUUCCAUUUU..UA..AGUG..UUU	UAAAGAGC
AB001289.1/155-208	AUUGCUUCCAUUUU..UA..AGUG..UUU	UAAAGAGC
AB001289.1/247-300	AUUGCUUCCAUUUU..UA..AGUG..UUU	UAAAGAGC
AB001289.1/257-310	AUUGCUUCCAUUUU..UA..AGUG..UUU	UAAAGAGC
AB001289.1/257-310	AUUGCUUCCAUUUU..UA..AGUG..UUU	UAAAGAGC
AB001849.1/107-160	UGGACCAIDAGGACGU..UA..AGUG..UUU	UAAAGAGC
AB001847.1/99-152	AAAACACACACACGU..UA..AGUG..UUU	UAAAGAGC
AB001847.1/99-152	AAAACACACACACGU..UA..AGUG..UUU	UAAAGAGC
Original RNAlfold	UGGACCAIDAGGACGU..UA..AGUG..UUU	UAAAGAGC

UnaL2 LINE 3' element NMR structure

AB179625.1/214-267	UGUUAAGAAGUUG	AGUUGUGGUAU	AUC	GAUUGCAUGUUA
AB179624.1/3561-3614	GAUUGAGCACUUAU	CGUUGUGGUAU	AUC	GAUUAACUGGUA
AB179628.1/210-243	UGUUAAGAAGUUG	AGUUGUGGUAU	AUC	GAUUGCAUGUUA
AB179627.1/210-243	UGUUAAGAAGUUG	AGUUGUGGUAU	AUC	GAUUGCAUGUUA
AB179626.1/214-267	AUGUUAAGAAGUUG	AGUUGUGGUAU	AUC	AUAUUCUGGUA
AB179629.1/214-267	UGUUAAGAAGUUG	AGUUGUGGUAU	AUC	GAUUGCAUGUUA
AB179625.1/214-267	GUUUAAGAAGUUG	AGUUGUGGUAU	AUC	GAUUGCAUGUUA
ABO01852.1/98-152	UGCGGACAGUUAU	AGUUGUGGUAU	AUC	AUGUGGCAUAUU
ABO01843.1/100-153	UGGACACADGAGAU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO01842.1/100-153	UGGACACADGAGAU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO01846.1/106-159	UGCGGACAGUUAU	AAGUGUGGUAU	AUC	AUGUGGCAUAUU
ABO01847.1/106-159	UGCGGACAGUUAU	AAGUGUGGUAU	AUC	AUGUGGCAUAUU
ABO01863.1/113-144	UGGACACADGUAU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO01863.1/91-144	UGGACACADGUAU	AGUUGUGGUAU	AUC	AARUGGCGUGUU
ABO01862.1/91-144	UGGACACADGUAU	AGUUGUGGUAU	AUC	AARUGGCGUGUU
ABO01869.1/103-156	UGGACACADGUAU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO01866.1/108-161	UGGACACADGUAU	UGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO01867.1/108-161	UGGACACADGUAU	UGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO01861.1/126-179	GGGACAGGUAUAU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO01839.1/75-130	UUGUGGACGACGUAU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO01840.1/75-130	UUGUGGACGACGUAU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
AY543891.1/989-936	UGGACACCAUAUU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO12889.1/249-302	AACUUCUCCAUAA	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO12890.1/249-302	AACUUCUCCAUAA	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO12891.1/195-208	AACUUCUCCAUUU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO12892.1/247-300	AACUUCUCCAUUU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO12893.1/257-310	AACUUCUCCAUUU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO12894.1/257-310	AACUUCUCCAUUU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO18409.1/107-160	UGGACACAGUAU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO18414.1/99-152	AAAACACACGUAU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
ABO18415.1/99-152	AAAACACACGUAU	AGUUGUGGUAU	AUC	AARUGGCAUAUU
NMR structure	UUGUGGACGUAUU	UUGUGGACGUAUU	UUGUGGACGUAUU	UUGUGGACGUAUU

UnaL2 LINE 3' element, RIBOSUM prediction

AB179625.1/214-267	UGUUAUAAAGUUGU	AUGUUGUUGGUAU	UAAAUAGCCUGUAU
AB179624.1/3561-3614	GAUAUGGACACUUUU	AGUUGUUGGUAU	UAAAUUAAUUGUAU
AB179628.1/210-263	ADGUAAAGUUGUUU	AUGUUGUUGGUAU	UAAAUAGCCUGUAU
AB179627.1/214-267	UGUUAUAAAGUUGU	AUGUUGUUGGUAU	UAAAUUAAUUGUAU
AB179626.1/214-267	UGUUAUAAAGUUGU	AUGUUGUUGGUAU	UAAAUAGCCUGUAU
AB179629.1/214-267	UGUUAUAAAGUUGU	AUGUUGUUGGUAU	UAAAUUAAUUGUAU
AB179625.1/214-267	UGUUAUAAAGUUGU	AUGUUGUUGGUAU	UAAAUAGCCUGUAU
AB01852.1/99-152	UGGCCACCAAGUCU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB0180143.1/100-153	UGCCACCAAGUCU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB01853.1/99-152	UGCCACCAAGUCU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB01854.1/99-152	UGCCACCAAGUCU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB01963.1/711-1164	UGGACACAGUAU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB01863.1/91-144	UGCCACCAUGUAU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB01864.1/91-144	UGCCACCAUGUAU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB01965.1/103-156	UGGACACAGUAU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB01966.1/108-161	UGCCACCAAGUCU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB01819.1/126-179	UGGCCACCAAGUCU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB01861.1/126-179	UGGCCACCAAGUCU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB018039.1/75-130	UGUUAUGGACGACU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB01810.1/75-130	UGUUAUGGACGACU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AY543819.1/989-936	AUUGGACCAUAUU	AGUUGUUGGUAU	UAAAUAGCUUAUU
AB012889.1/249-302	AACUUCUCAAUUU	AGUUGUUGGUAU	UAAAUAGCUUAUU
AB012888.1/241-214	AACUUCUCAAUUU	AGUUGUUGGUAU	UAAAUAGCUUAUU
AB012892.1/201-201	AACUUCUCAAUUU	AGUUGUUGGUAU	UAAAUAGCUUAUU
AB012891.1/267-300	AACUUCUCAAUUU	AGUUGUUGGUAU	UAAAUAGCUUAUU
AB012893.1/257-310	AACUUCUCAAUUU	AGUUGUUGGUAU	UAAAUAGCUUAUU
AB012894.1/257-310	AACUUCUCAAUUU	AGUUGUUGGUAU	UAAAUAGCUUAUU
AB018449.1/107-160	UGCCACCAAGUCU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB018447.1/99-152	AAAACCAAGUCU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
AB018448.1/99-152	UUGCCACCAAGUCU	AUGUUGUUGGUAU	UAAAUUGCAUAUU
Ribosome prediction	UUGCCACCAAGUCU	UUGCCACCAAGUCU	UUGCCACCAAGUCU