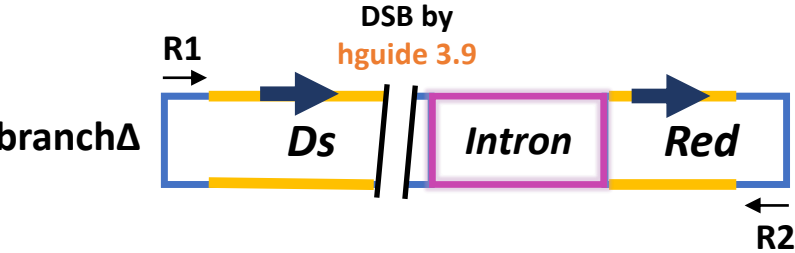
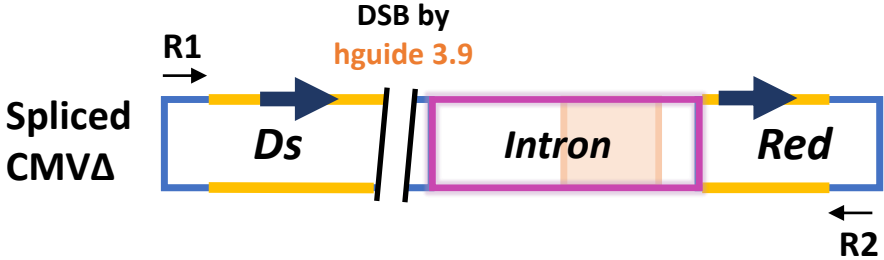
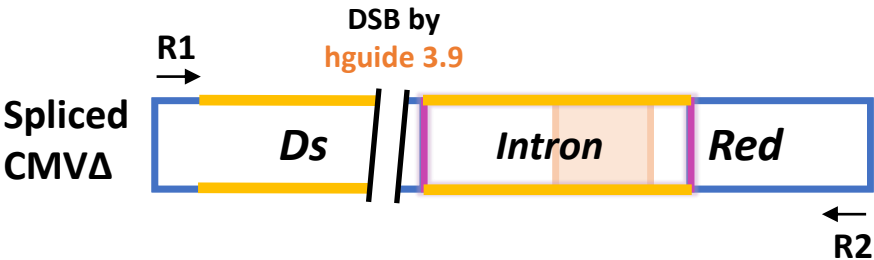


Scheme for 1 DSB by **hguide 3.9** (Yellow line indicates possible positions of microhomology for each groups)

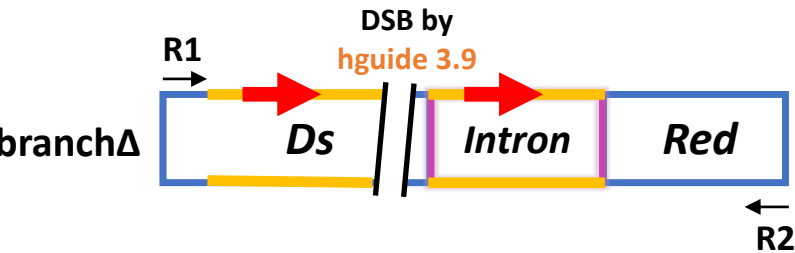
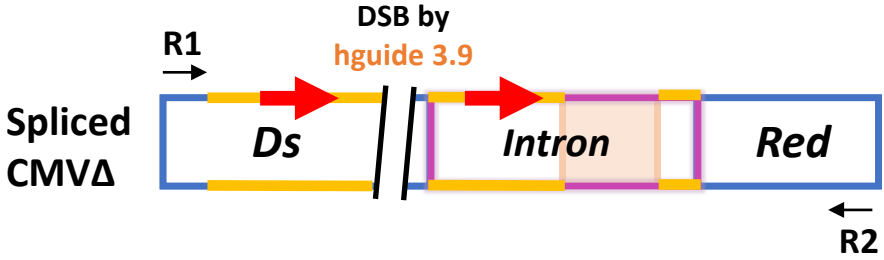
Group 1 (Exon1-Exon2)



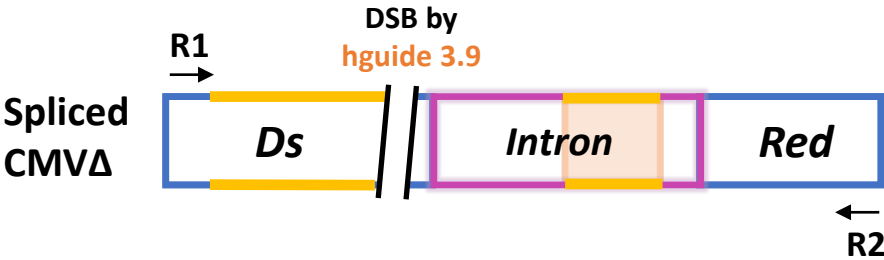
Group 2 (Exon1-Intron all)



Group 3 (Exon1-Intron w/o branch)

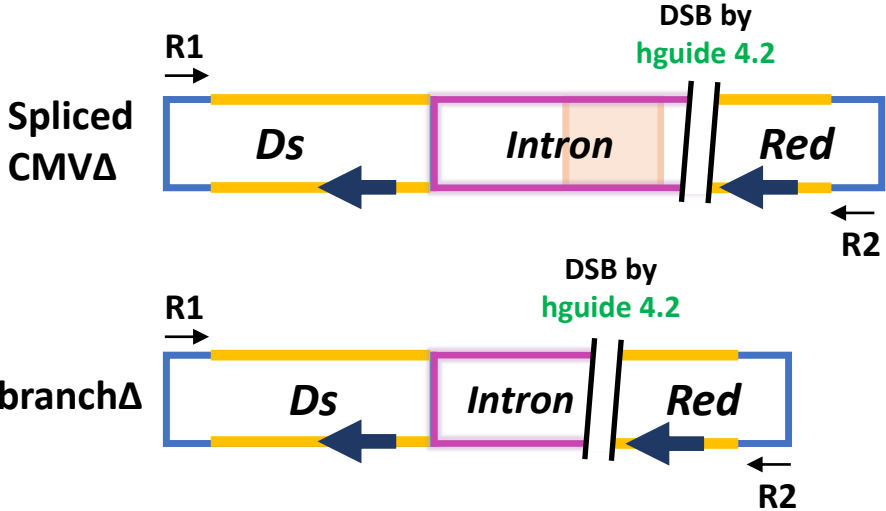


Group 4 (Exon1-branch site)

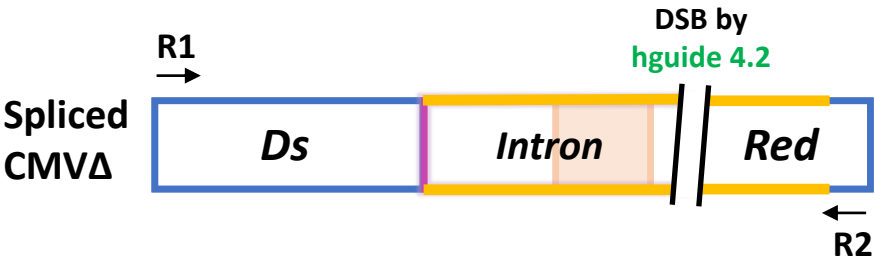


Scheme for 1 DSB by **hguide 4.2** (Yellow line indicates possible positions of microhomology for each groups)

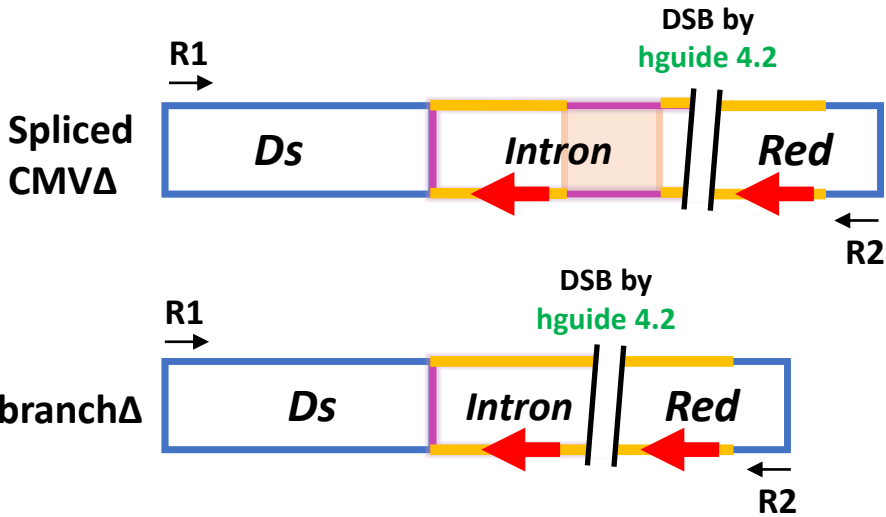
Group 1 (Exon2-Exon1)



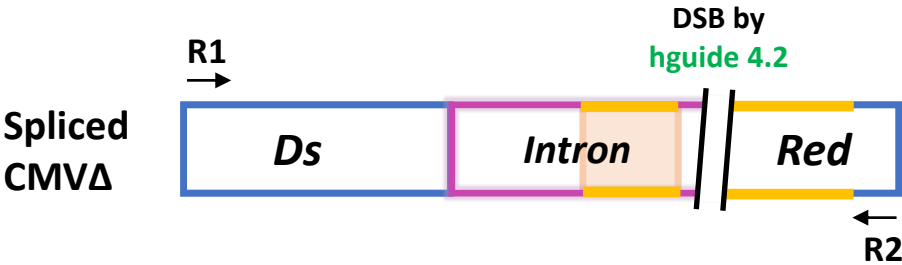
Group 2 (Exon2-Intron all)



Group 3 (Exon2-Intron w/o branch)

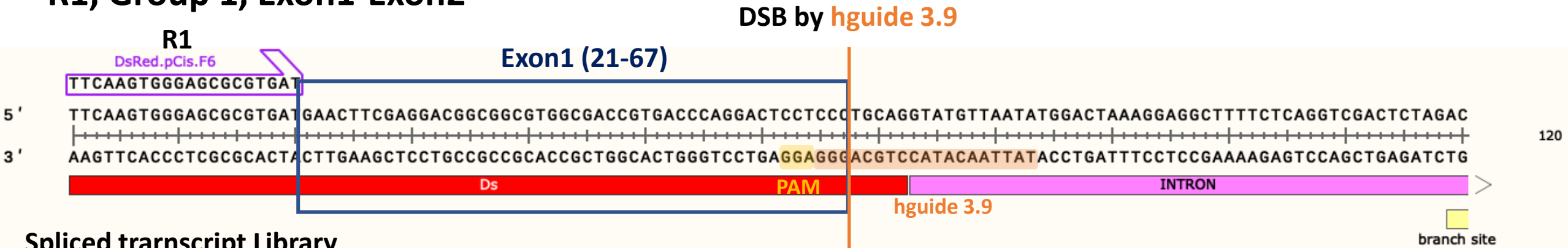


Group 4 (Exon2-branch site)

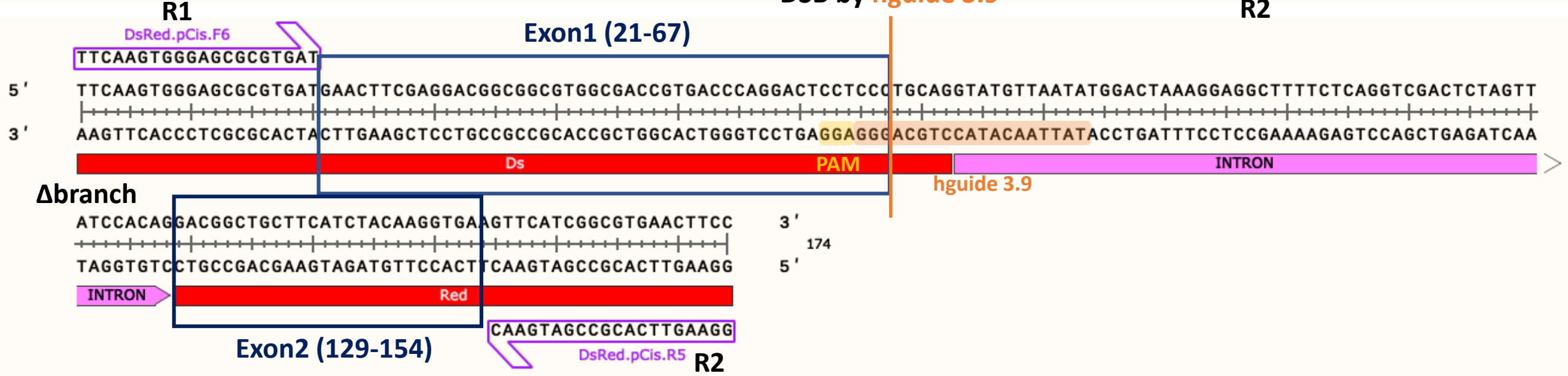
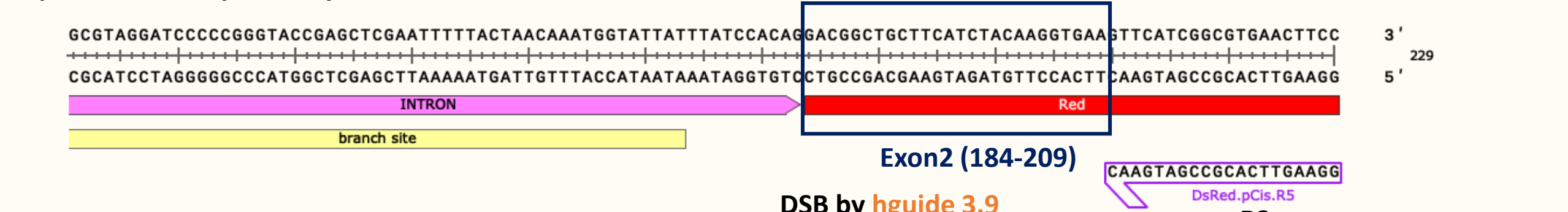


1 DSB by hguide 3.9

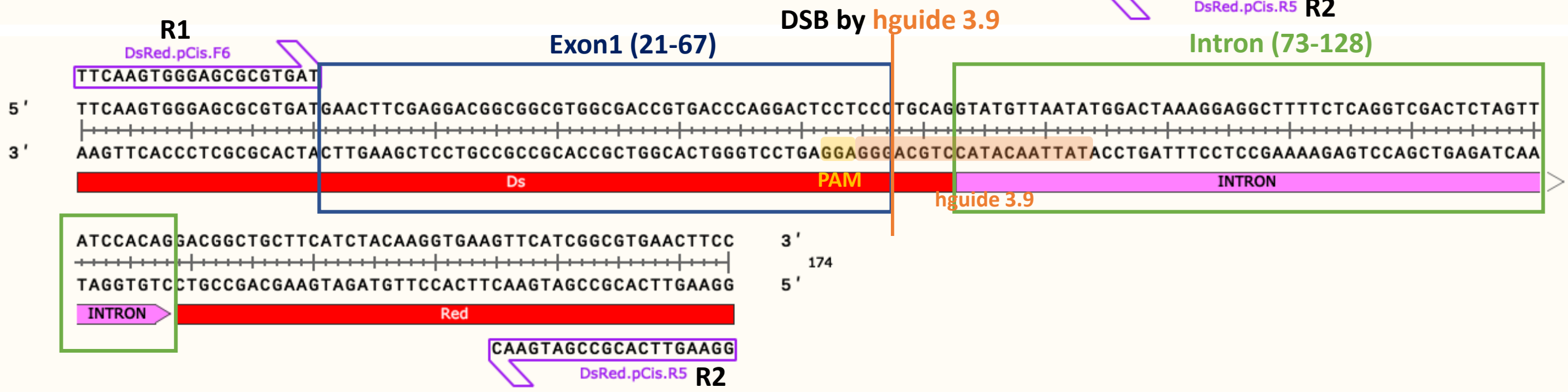
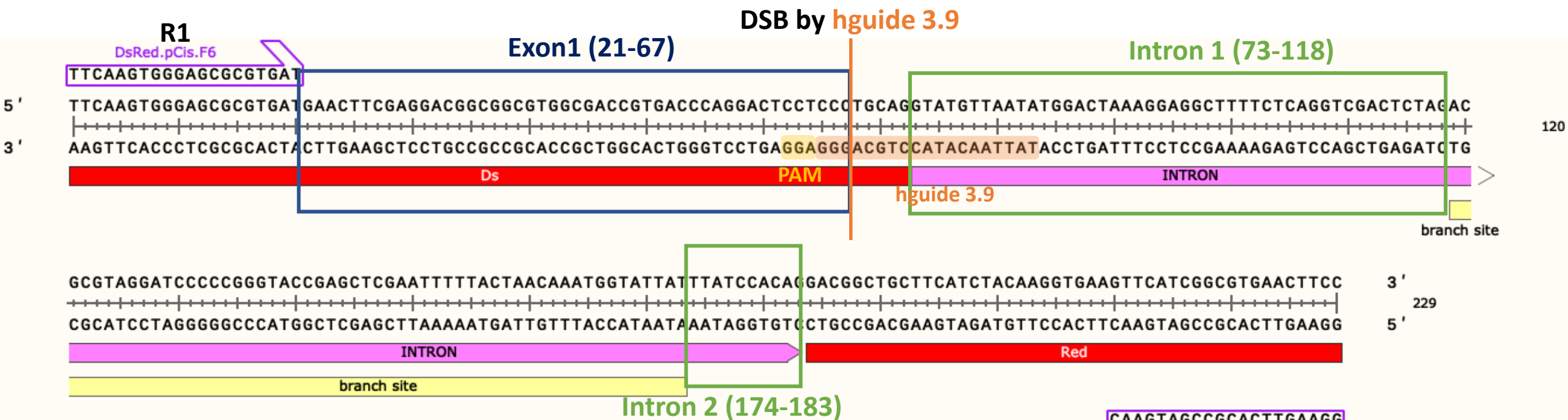
R1, Group 1, Exon1-Exon2



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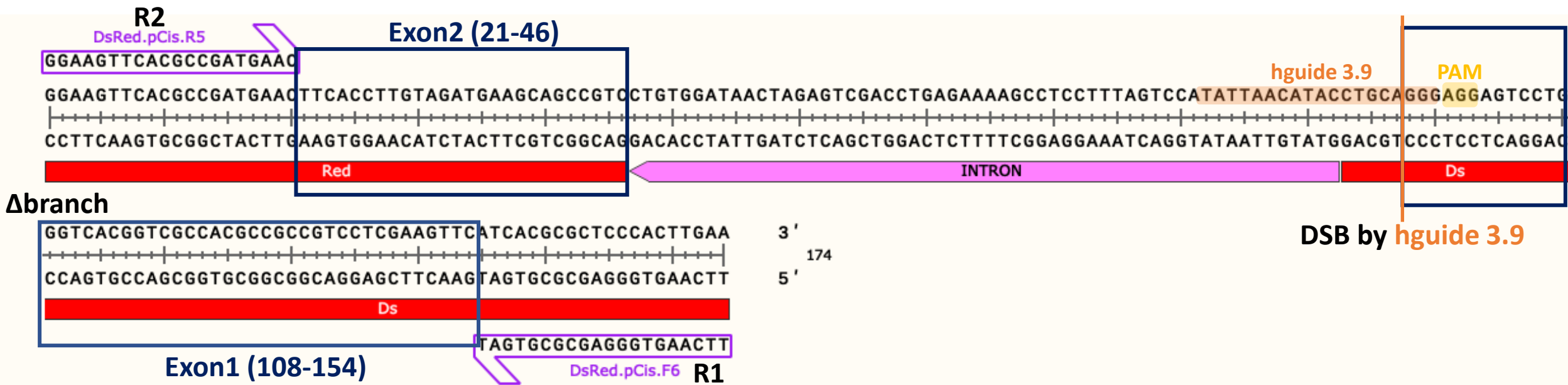
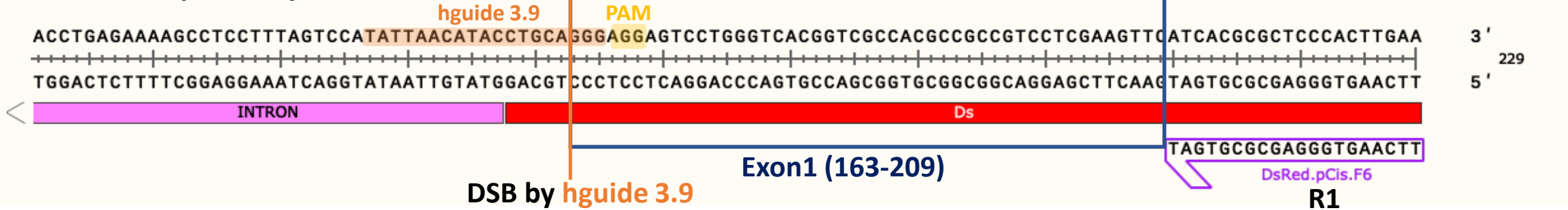
R1, Group 3, Exon1-Intron (w/o branch site)



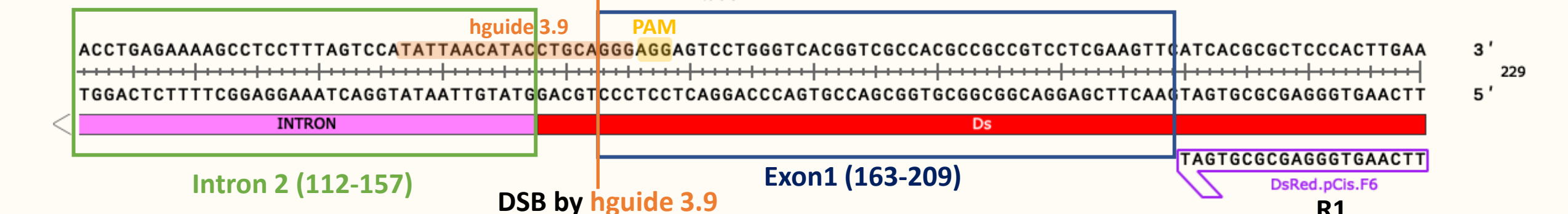
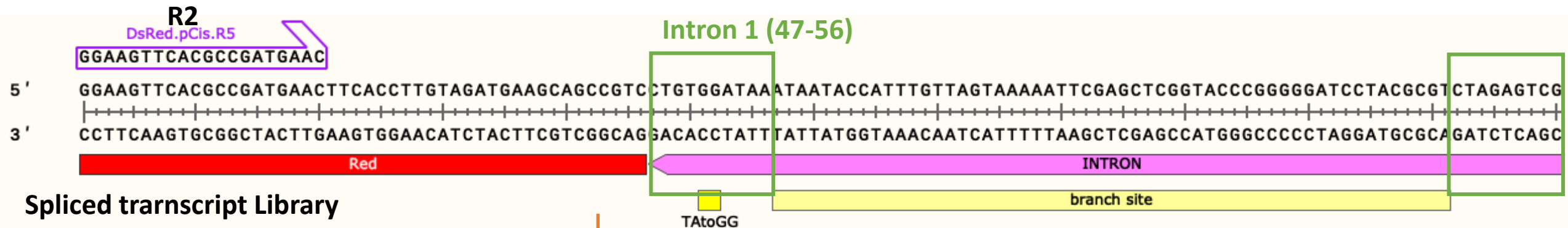
R2, Group1, Exon1-Exon2



Spliced transcript Library

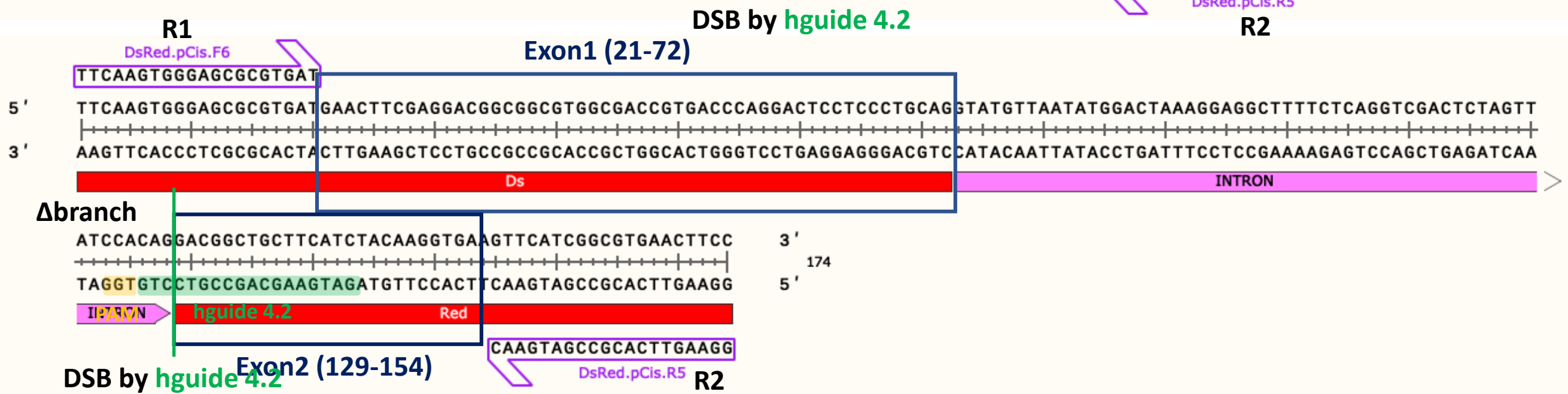
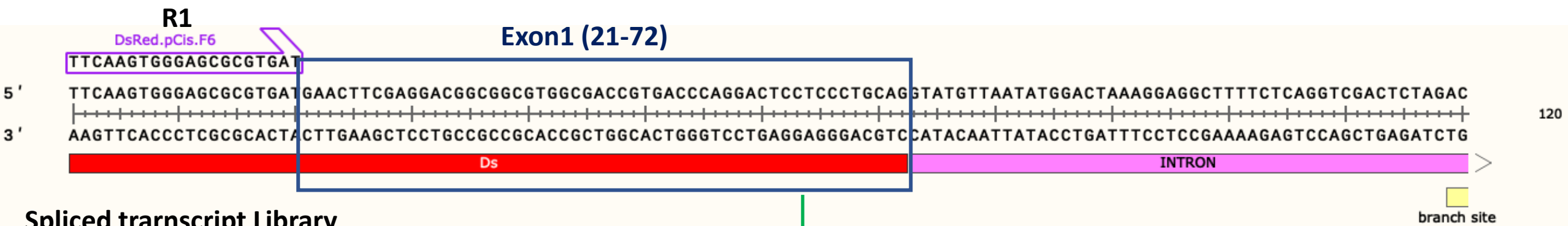


R2, Group 3, Exon1-Intron (w/o branch site)

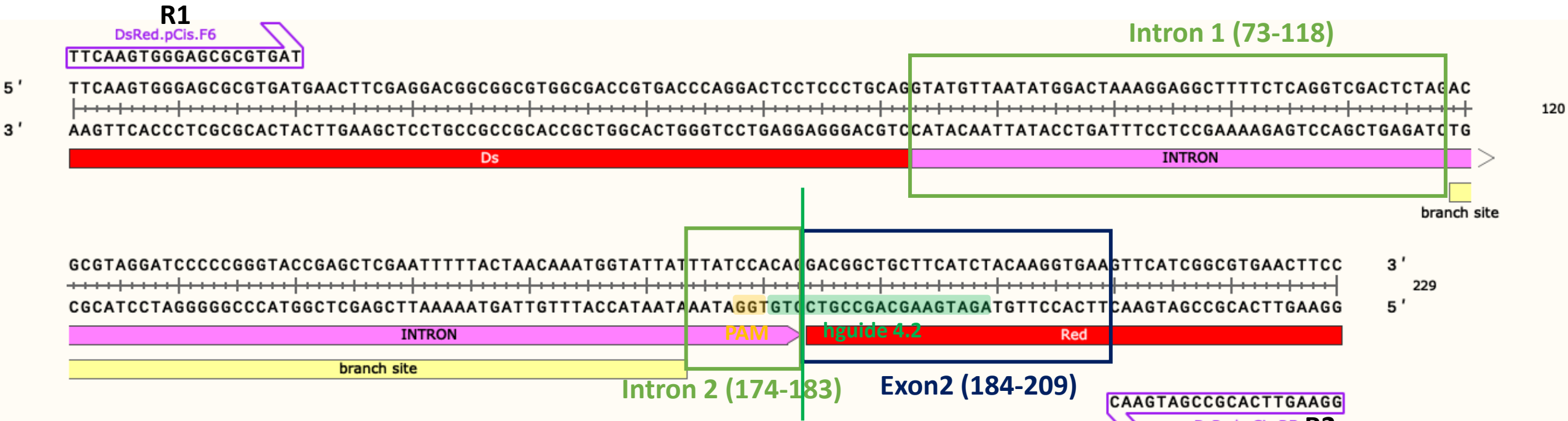


1 DSB by hguide 4.2

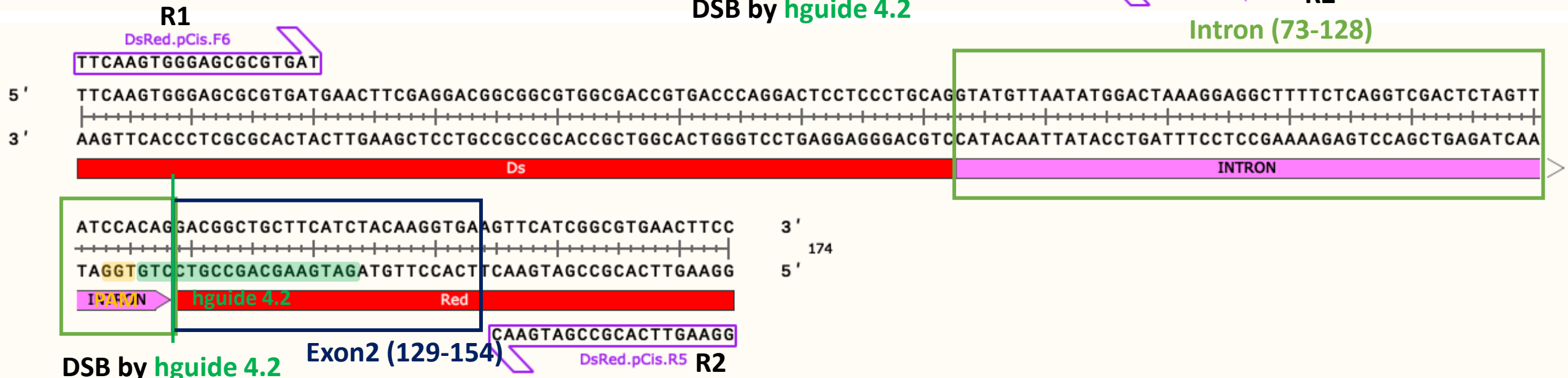
R1, Group 1, Exon2-Exon1



R1, Group 3, Exon2-Intron (w/o branch site)

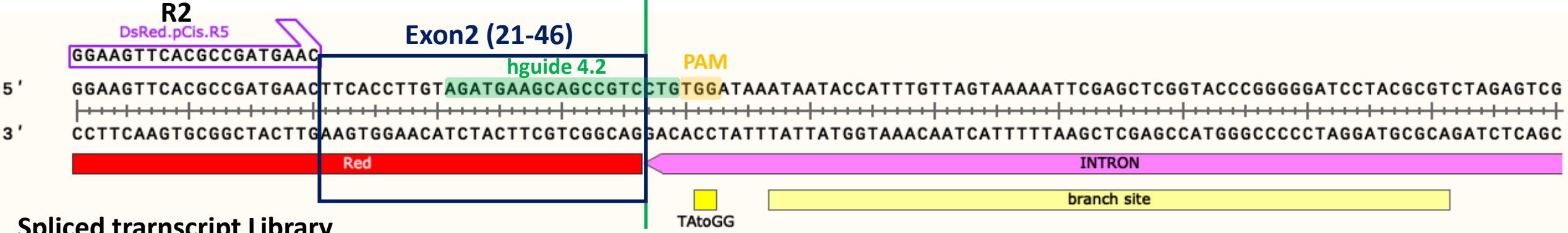


DSB by hguide 4.2

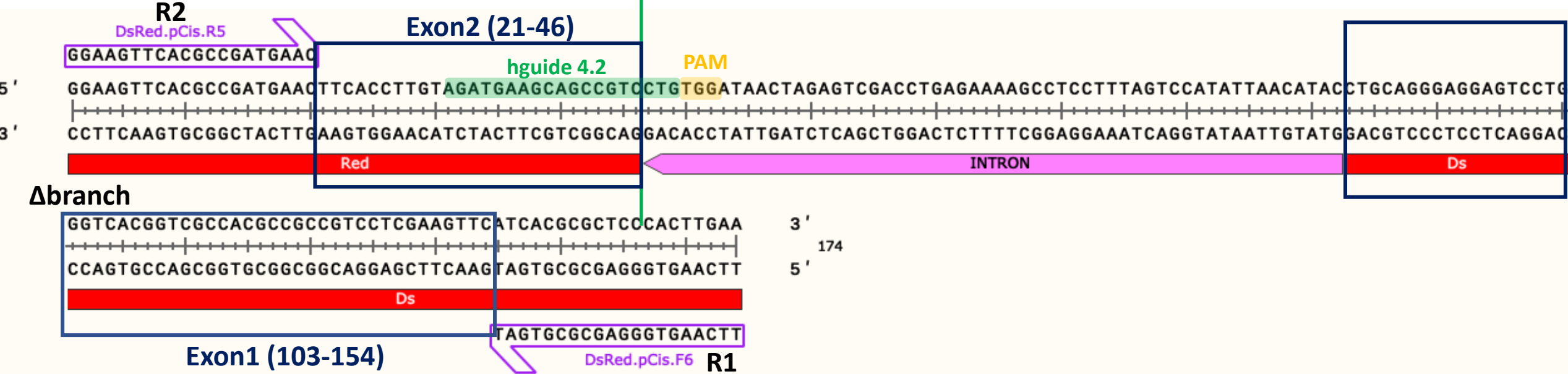


R2, Group1, Exon2-Exon1

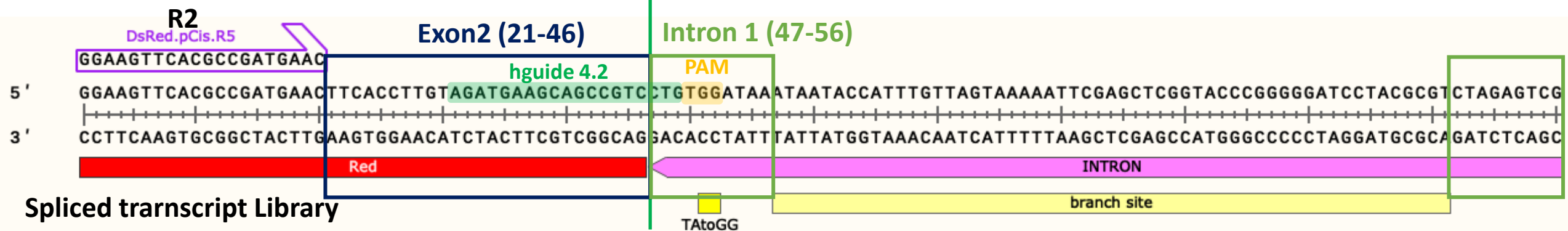
DSB by **hguide 4.2**



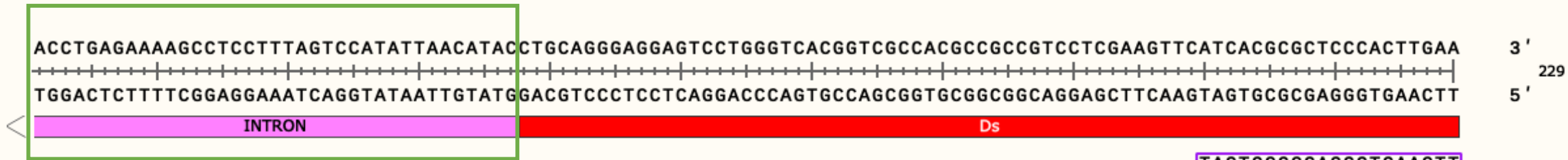
DSB by **hguide 4.2**



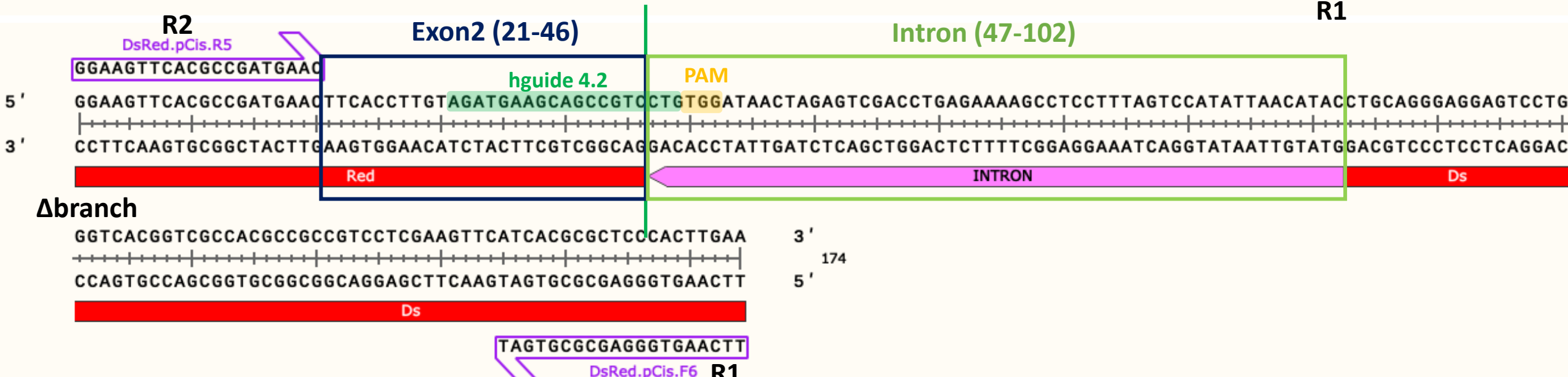
R2, Group 3, Exon2-Intron (w/o branch site)
DSB by **hguide 4.2**



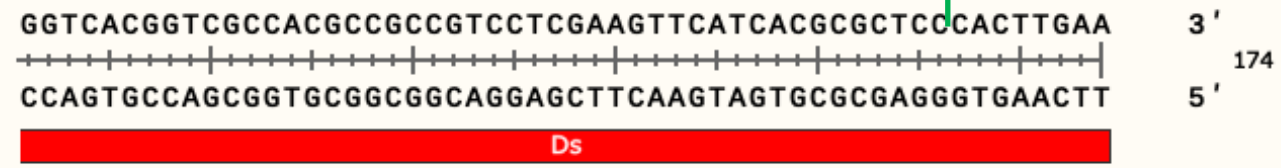
Spliced transcript Library



Intron 2 (112-157)

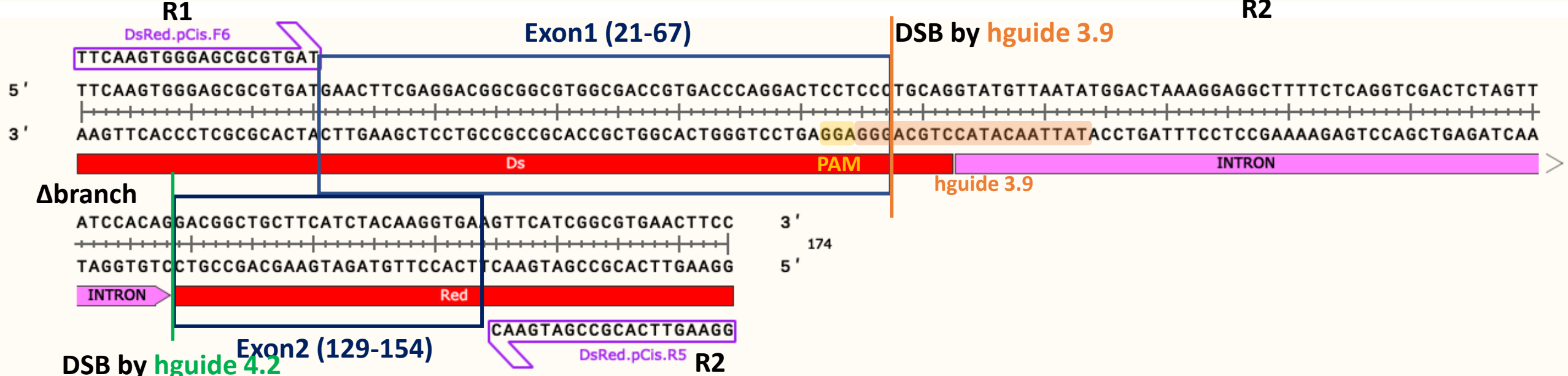
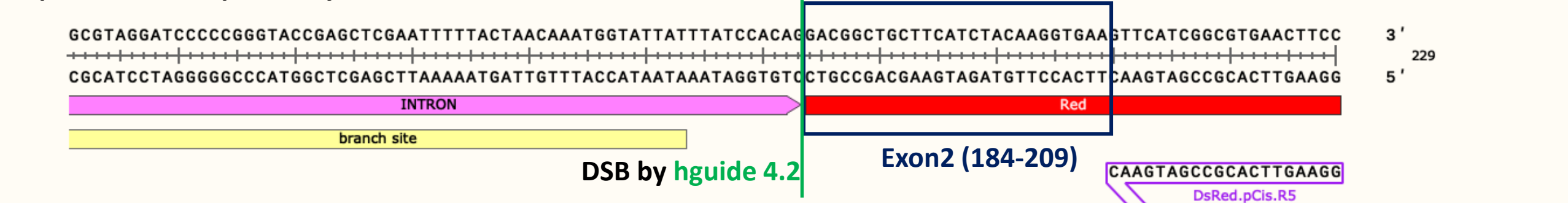
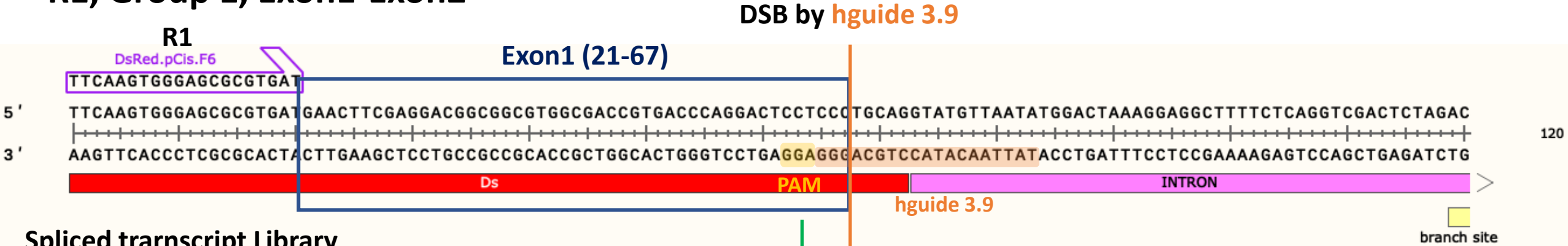


Δbranch

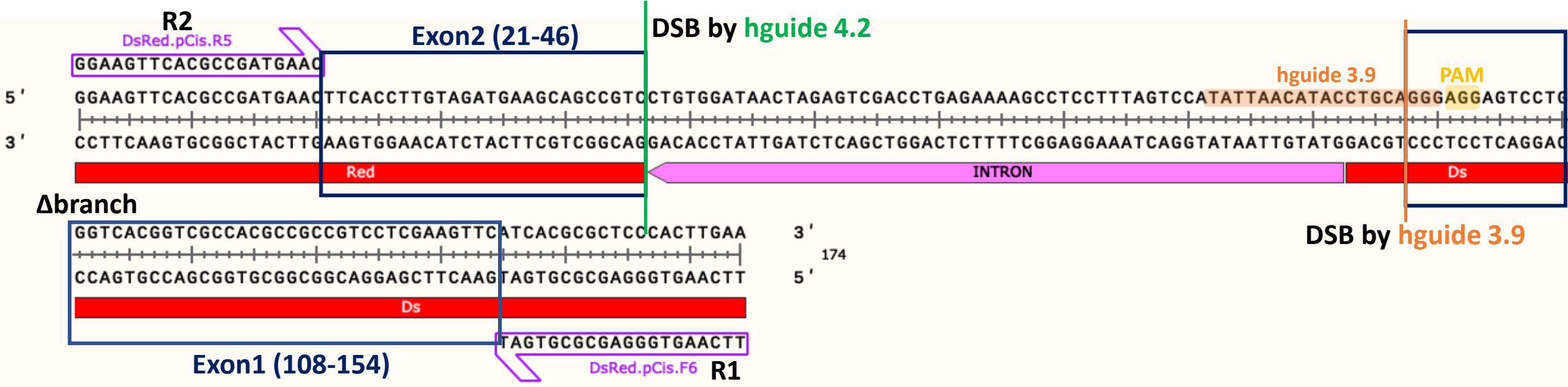
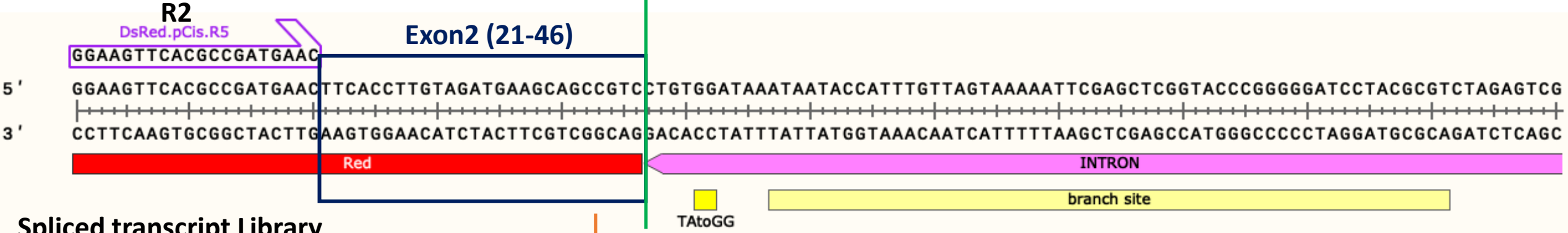


2 DSBs by hguide 3.9 + 4.2

R1, Group 1, Exon1-Exon2



R2, Group 1, Exon1-Exon2 DSB by hguide 4.2

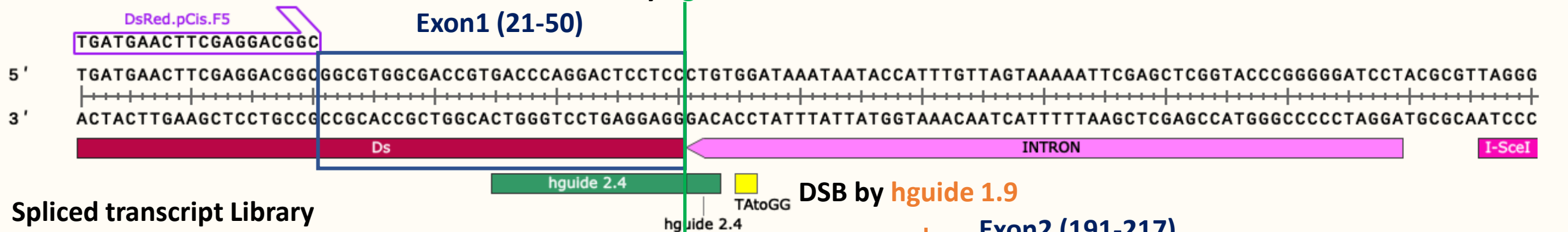


Antisense plasmids

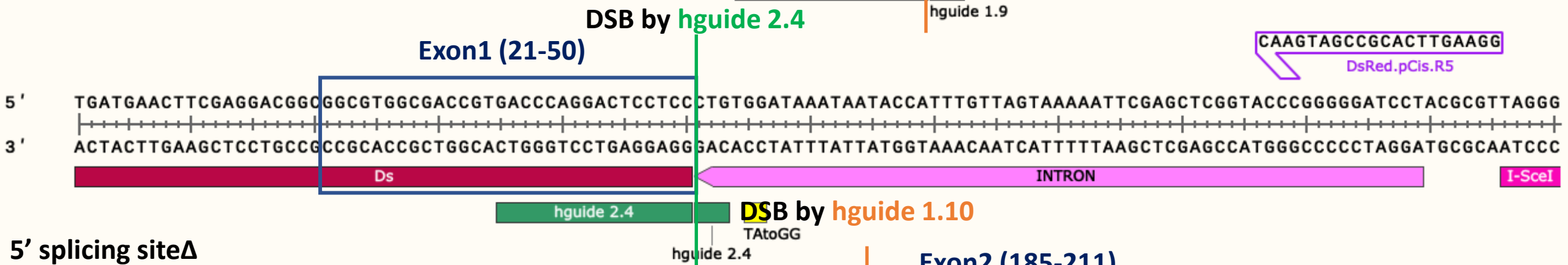
2 DSBs

R1, Group 1, Exon1-Exon2

DSB by **hguide 2.4**



Spliced transcript Library



5' splicing siteΔ

R2, Group 1, Exon1-Exon2

DSB by **hguide 1.9**

DsRed.pCis.R5

Exon2 (21-47)

GGAAGTTCACGCCGATGAAC

GGAAGTTCACGCCGATGAAC TTCACCTTGTAGATGAAGCAGCCGTCCTGCAGGTATGTTAATATGGACTAAAGGAGGCTTTTCTCAGGTCGACTCTAGACGCGTATTACCCTGTTATCCC

CCTTCAAGTGCGGCTACTTGAAGTGGAACATCTACTTCGTCTGGCAGGACGTCCATACAATTATACCTGATTTCTCCGAAAAGAGTCCAGCTGAGATCTGCGCATAATGGGACAATAGGG

DsRed

INTRON(1)

I-SceI

hguide 1.9

hguide 1.9

Spliced transcript Library

Exon1 (188-217)

TAACGCGTAGGATCCCCCGGGTACCGAGCTCGAATTTTACTAACAAATGGTATTATTTATCCACAGGGAGGAGTCCTGGGTACAGGTCGCCACGCCGCCGTCCTCGAAGTTCATCA

ATTGCGCATCCTAGGGGGCCCATGGCTCGAGCTTAAAAATGATTGTTTACCATAATAAATAGGTGTCCCTCCTCAGGACCCAGTGCCAGCGGTGCGGGCGGCAGGAGCTTCAAGTAGT

INTRON

Ds

I-SceI

DSB by **hguide 1.9**

Exon2 (21-47)

GGAAGTTCACGCCGATGAAC

GGAAGTTCACGCCGATGAAC TTCACCTTGTAGATGAAGCAGCCGTCCTGCAGTAATATGGACTAAAGGAGGCTTTTCTCAGGTCGACTCTAGACGCGTATTACCCTGTTATCCCTAACGC

CCTTCAAGTGCGGCTACTTGAAGTGGAACATCTACTTCGTCTGGCAGGACGTCAATTATACCTGATTTCTCCGAAAAGAGTCCAGCTGAGATCTGCGCATAATGGGACAATAGGGATTGCG

DsRed

INTRON(1)

I-SceI

hguide 1.9

hguide 1.9

5' splicing siteΔ

DSB by **hguide 2.4**

Exon1 (182-211)

GTAGGATCCCCCGGGTACCGAGCTCGAATTTTACTAACAAATGGTATTATTTATCCACAGGGAGGAGTCCTGGGTACAGGTCGCCACGCCGCCGTCCTCGAAGTTCATCA

CATCCTAGGGGGCCCATGGCTCGAGCTTAAAAATGATTGTTTACCATAATAAATAGGTGTCCCTCCTCAGGACCCAGTGCCAGCGGTGCGGGCGGCAGGAGCTTCAAGTAGT

INTRON

Ds

TAtGG

hguide 2.4

3'

231

5'