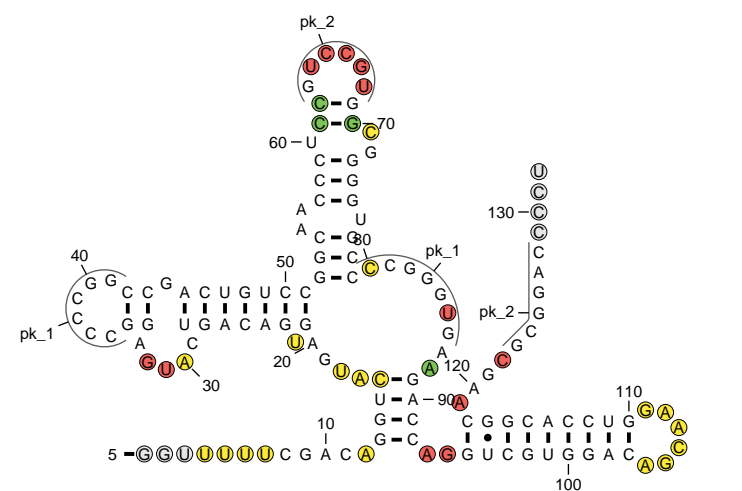


WARNING: R2R is not intended to evaluate evidence for covariation or RNA structure where this is in question. It is not appropriate to use R2R's covariation markings to declare that there is evidence of structural conservation within an alignment. R2R is a drawing program. As the original paper, Weinberg and Breaker, 2011 wrote: "This automated R2R annotation [of covariation] does not reflect the extent or confidence of covariation. While such information can be useful, we believe that thorough evaluation of covariation evidence ultimately requires analysis of the full sequence alignment. For example, misleading covariation can result from an incorrect alignment of sequences, or from alignments of sequences that do not function as structured RNAs. Unfortunately, there is no accepted method to assign confidence that entirely eliminates the need to analyze the full alignment." To disable this warning, run r2r with --disable-usage-warning

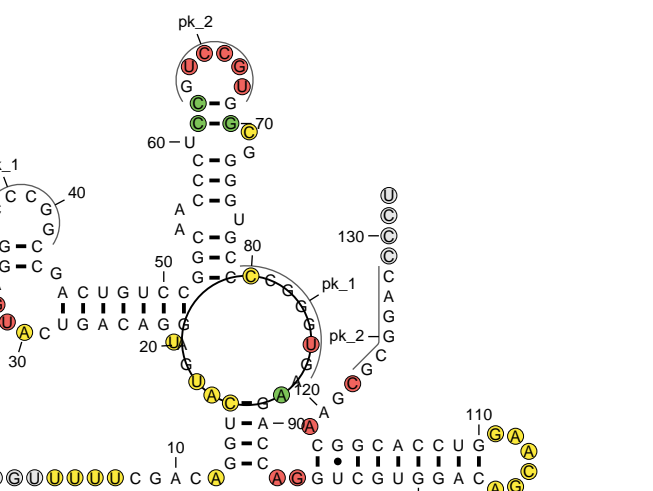
SAM-IV NC\_003888.3/2308784-2308334 multistem=original

Shrinking nucs & bonds using  
nucShrinkWithCircleNuc and pairBondScaleWithOneSeq  
because circle\_nuc or #=GR ... CLEAVAGE was used  
To disable this warning message:  
#=GF R2R SetDrawingParam nucShrinkWithCircleNuc 1 drawingParams.pairBondScaleWithCircleNuc 1  
See note1 in manual for more information.



SAM-IV NC\_003888.3/2308784-2308334 multistem=solver internalloop=solver2SAM-IV NC\_003888.3/2308784-2308334 pseudoknot=1

Shrinking nucs & bonds using  
nucShrinkWithCircleNuc and pairBondScaleWithOneSeq  
because circle\_nuc or #=GR ... CLEAVAGE was used  
To disable this warning message:  
#=GF R2R SetDrawingParam nucShrinkWithCircleNuc 1 drawingParams.pairBondScaleWithCircleNuc 1  
See note1 in manual for more information.

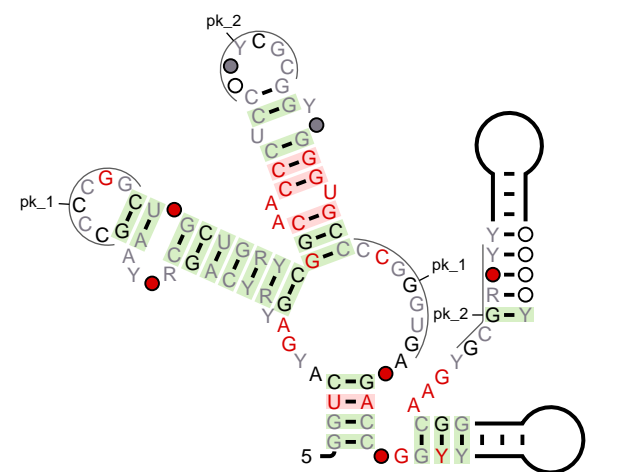


SAM-IV NC\_003888.3/2308784-2308334 pseudoknot=2

Shrinking nucs & bonds using  
nucShrinkWithCircleNuc and pairBondScaleWithOneSeq  
because circle\_nuc or #=GR ... CLEAVAGE was used  
To disable this warning message:  
#=GF R2R SetDrawingParam nucShrinkWithCircleNuc 1 drawingParams.pairBondScaleWithCircleNuc 1  
See note1 in manual for more information.

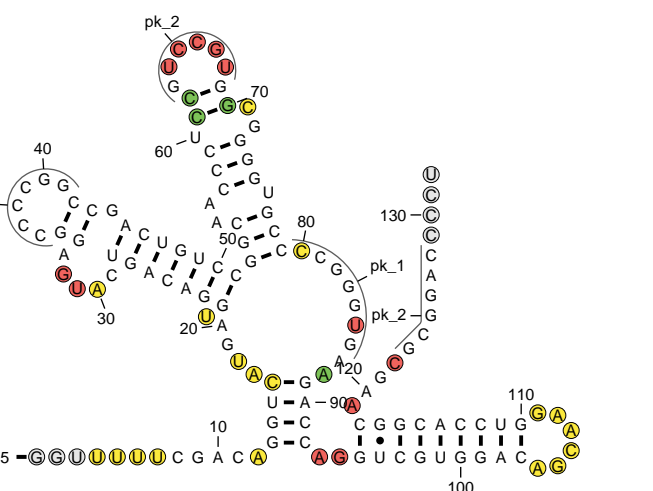


SAM-IV.cons

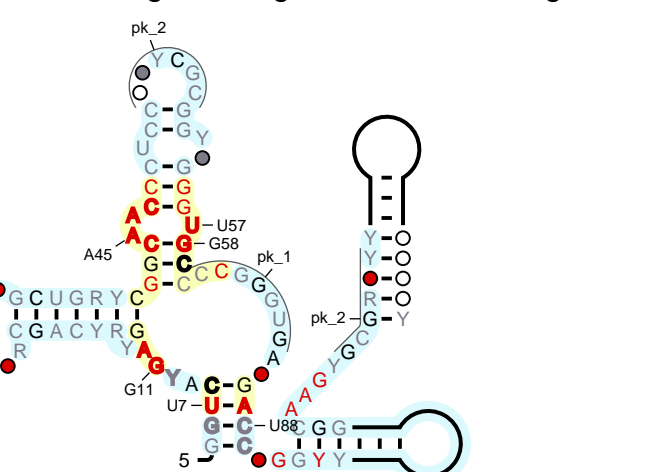


SAM-IV.cons NC\_003888.3/2308784-2308334

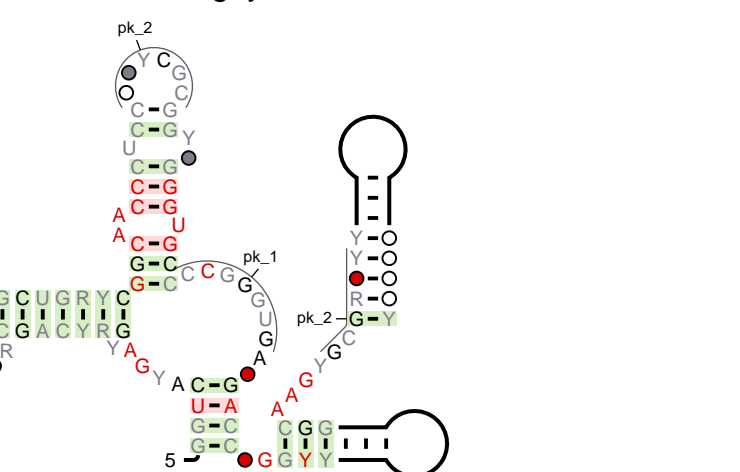
Shrinking nucs & bonds using  
nucShrinkWithCircleNuc and pairBondScaleWithOneSeq  
because circle\_nuc or #=GR ... CLEAVAGE was used  
To disable this warning message:  
#=GF R2R SetDrawingParam nucShrinkWithCircleNuc 1 drawingParams.pairBondScaleWithCircleNuc 1  
See note1 in manual for more information.



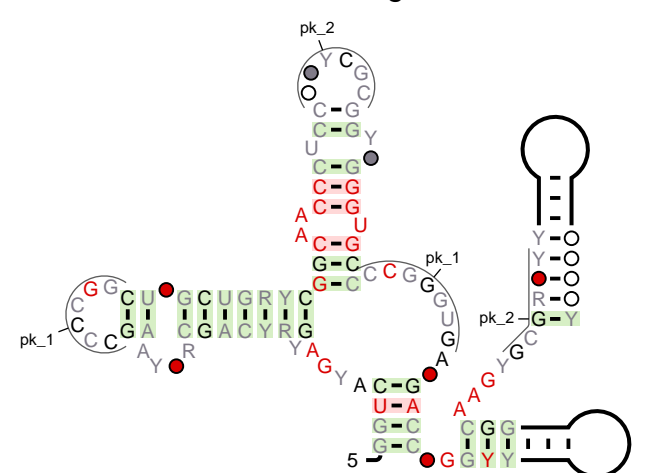
SAM-IV.cons Weinberg2008-Fig1=1 multistem=original



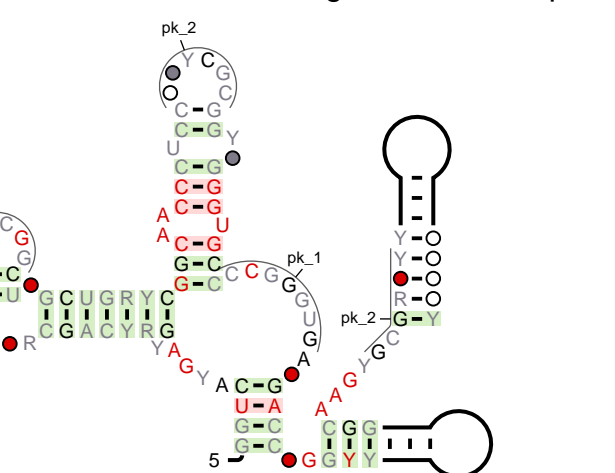
SAM-IV.cons multistem=bulge



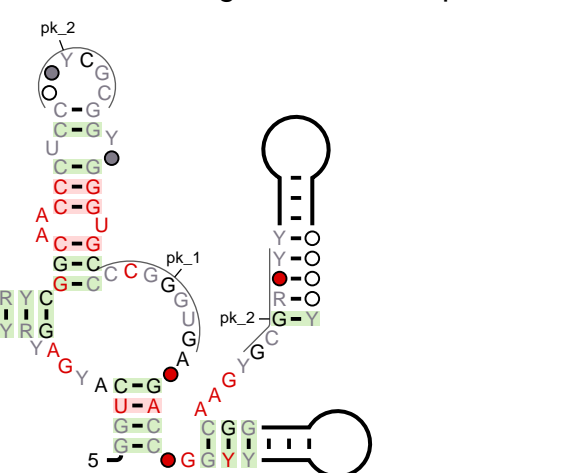
SAM-IV.cons multistem=original



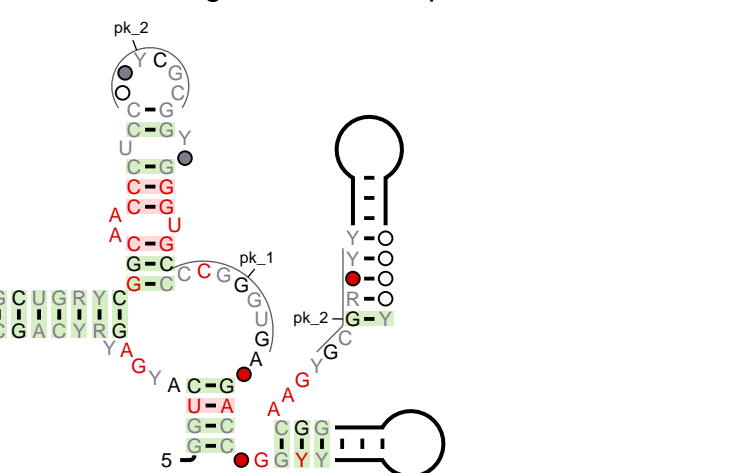
SAM-IV.cons multistem=original internalloop=solver



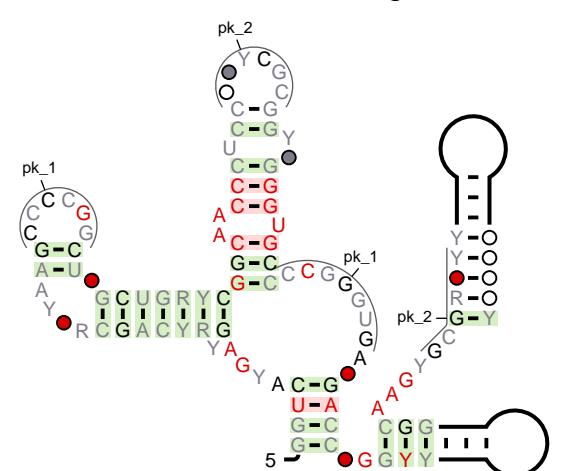
SAM-IV.cons multistem=original internalloop=solver2



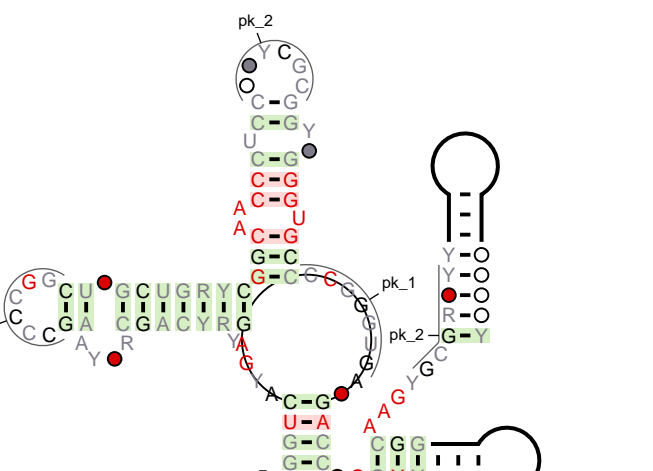
SAM-IV.cons multistem=original internalloop=solver3



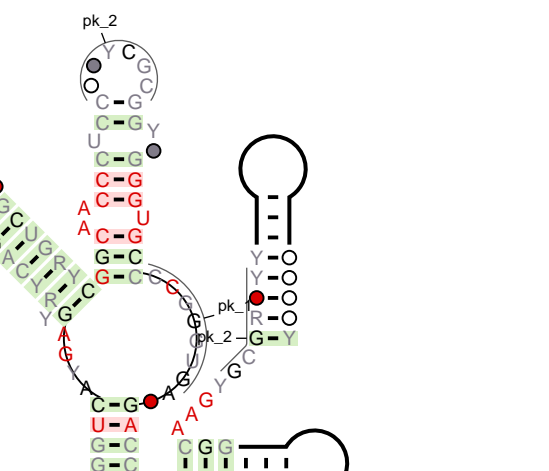
SAM-IV.cons multistem=original internalloop=turn



SAM-IV.cons multistem=solver



SAM-IV.cons multistem=solver2



SAM-IV.cons pseudoknot=1



SAM-IV.cons pseudoknot=2



SAM-IV.cons skeleton-with-bp

