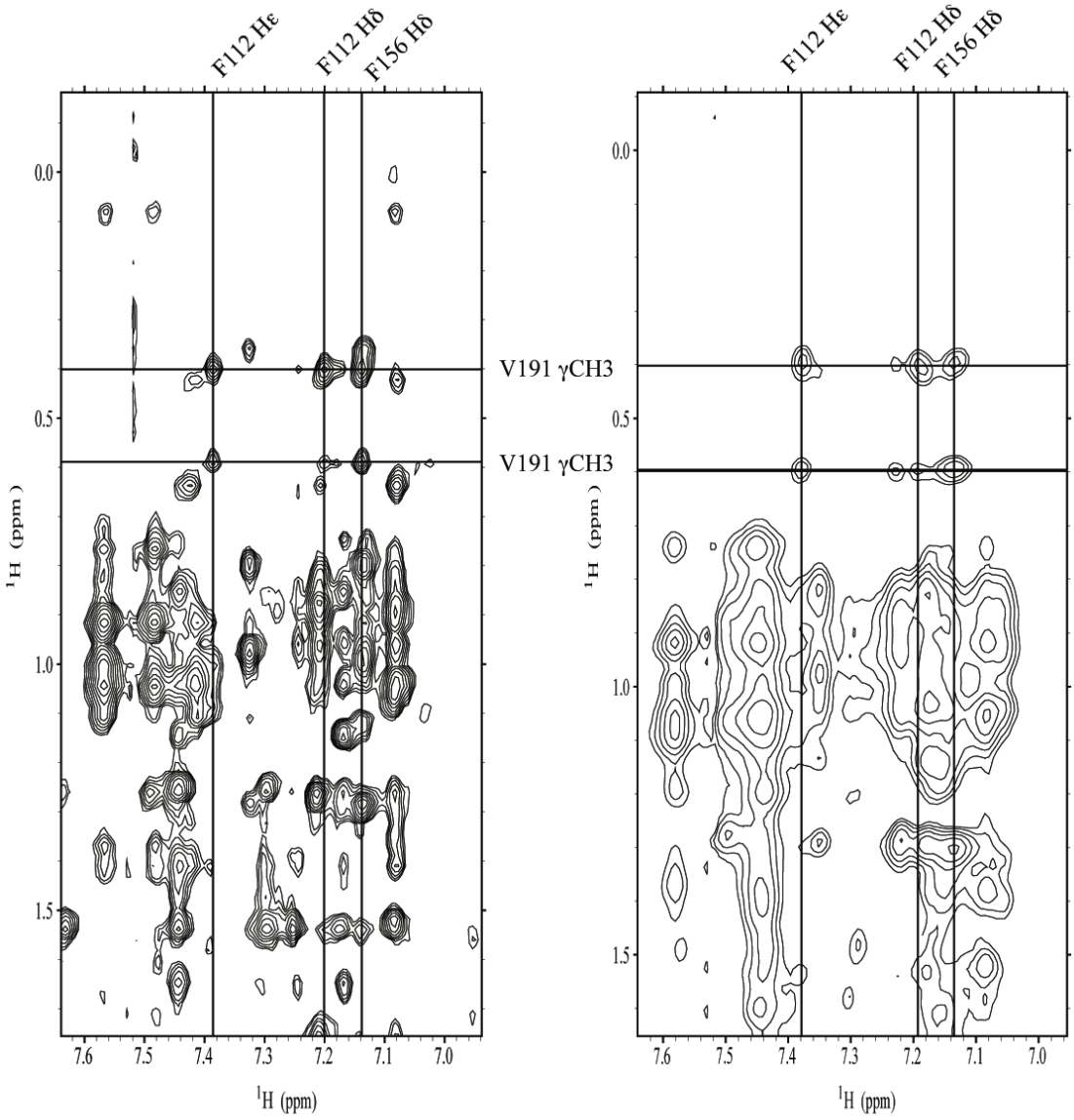
Supporting material:

Supporting material 1: NOEs between the C-terminal α-helix and the β-sheet are also present in the presence of RNA. The figure corresponds to a portion of 2D NOE spectra of qRRM1-2 free (left) or in complex with Bcl-x G-tract RNA (right) recorded in D_2O. Vertical lines correspond to chemical shifts of F112 and F156 aromatic protons. Horizontal lines correspond to chemical shifts of V191 methyl groups.

Supporting material 2: The F156A mutation has a dramatic effect on qRRM2 structure while F120A, H178A, Y180A, and F120A/Y180A mutations do not disrupt the qRRM2 fold. Overlay of HSQC spectra of wild type qRRM2 (black) with qRRM2 mutants (red).

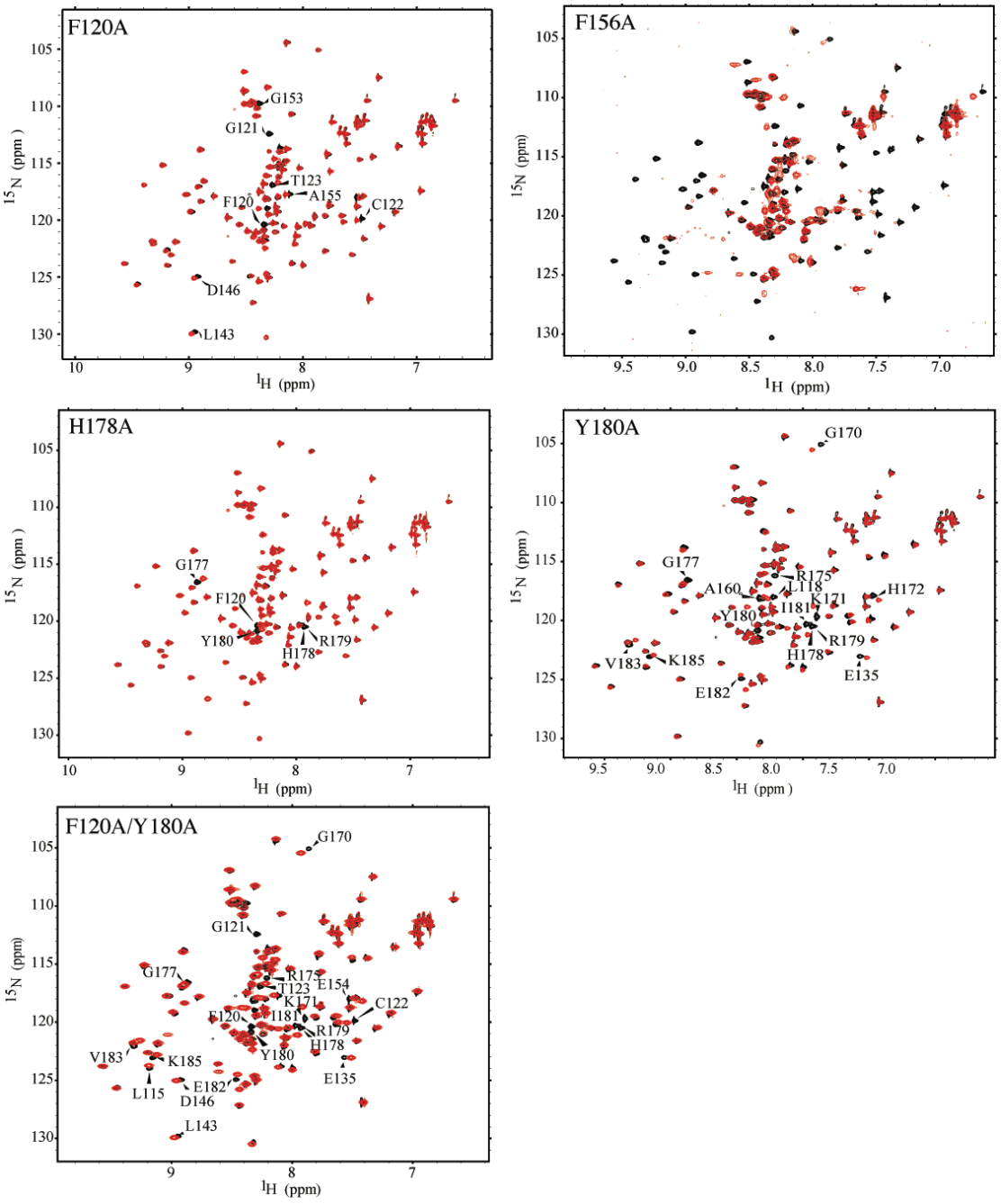
Supporting material 3: F120 and Y180 are crucial for RNA binding. NMR chemical shift perturbation upon RNA binding for wild type qRRM2 and F120A, Y178A, Y180A, and F120A/Y180A mutants. Peaks corresponding to the free protein are displayed in black and those in complex with RNA are in red. Arrows indicate the direction and the amplitude of the chemical shift perturbations. Boxes represent peaks that harbor a non-significant chemical shift perturbation. Note that G117, which disappears during titration and reappears when a 1-1 complex is formed, does not reappear in the Y180A mutant.



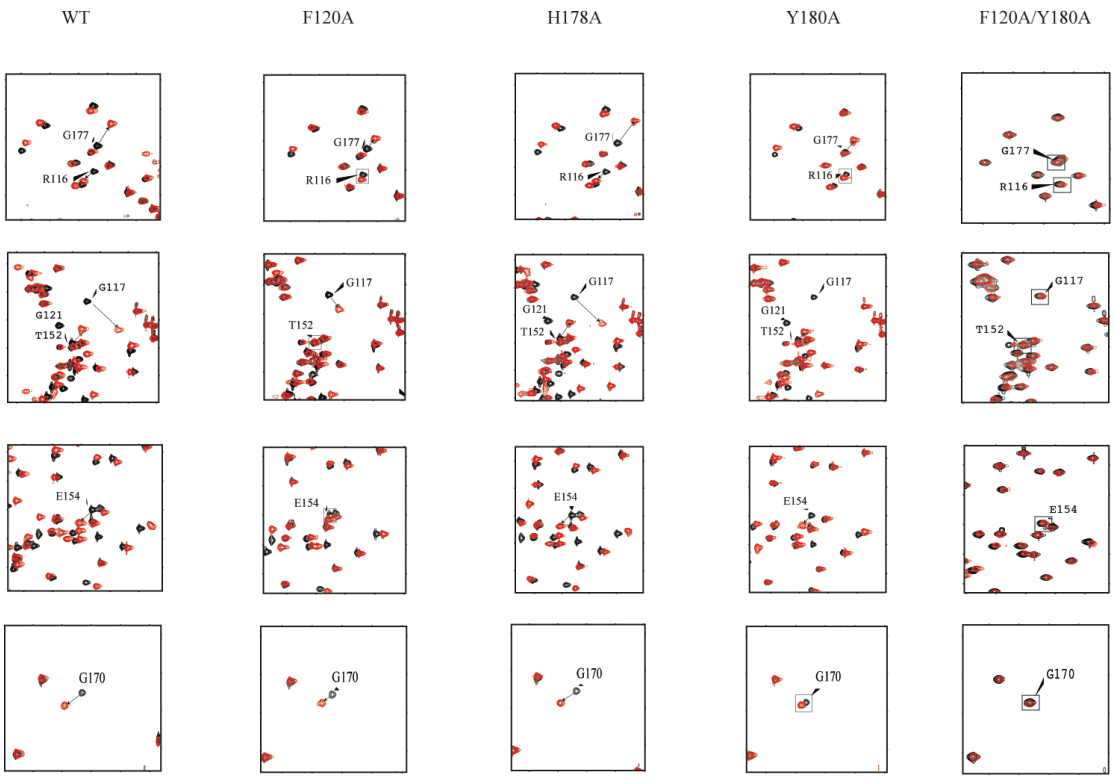
Free qRRM1-2

qRRM1-2 - Bcl-x complex

Supporting Material 1



Supporting Material 2



Supporting Material 3