Supplemental Figure S1. Biophysical characterization of pre-miRNA-1229_WT GQ. UV thermal denaturation profiles (**A**) of pre-miRNA-1229_GQ WT reveal a hypochromic transition, corresponding to GQ dissociation, between 65°C and 95°C. The average T_m was determined to be ~80°C. Full 20% non-denaturing gels (**B**) are shown, visualized with UV shadow (left panel) and stained in NMM (right panel).

Supplemental Figure S2. Biophysical characterization of pre-miRNA-1229_WT FL. Full 15% nondenaturing gels of pre-miRNA-1229_WT FL are shown, visualized with UV shadow (left panel) and stained in NMM (right panel).

Supplemental Figure S3. Biophysical characterization of pre-miRNA-1229_SNP GQ. UV thermal denaturation profiles (**A**) of pre-miRNA-1229_GQ SNP reveal a hypochromic transition, corresponding to GQ dissociation, between 65°C and 95°C. The average T_m was determined to be ~79°C. Full 20% non-denaturing gels (**B**) are shown, visualized with UV shadow (left panel) and stained in NMM (right panel).

Supplemental Figure S4. Biophysical characterization of pre-miRNA-1229_SNP FL. Full 15% non-denaturing gels of pre-miRNA-1229_SNP FL are shown, visualized with UV shadow (left panel) and stained in NMM (right panel).











