



*Figure S6. Logarithmic distribution of the backbone hydrogen bond formed between residues 08 and 12, across the hairpin, in four different BRC repeats. All BRC repeats containing T08 (e.g. BRC4A and BRC7A) have very similar distributions, and do not fluctuate beyond 3.5Å. In BRC6A and mutated BRC7A, both of which contain the T08I substitution, fluctuations are more pronounced, which may lead to unfolding of the hairpin on very long time scales.*