

The diagram illustrates a segment of a DNA double helix. Two sugar-phosphate backbones are shown as zigzag lines, oriented antiparallelly. The left strand runs from 5' at the top to 3' at the bottom, while the right strand runs from 3' at the top to 5' at the bottom. Nitrogenous bases are represented by colored circles: blue for purines (adenine and guanine) and orange for pyrimidines (cytosine and thymine). The bases are connected to their respective sugars by vertical lines representing hydrogen bonds. The sequence of bases on the left strand (top to bottom) is G-A-A-G-C, and on the right strand (top to bottom) is C-T-A-A-G. The complementary base pairing is G-C, A-T, A-T, G-C.



5'	aaauugcacggauuuuuguccuuggacuuuauucugguuccucgaagcucacaguuuuccccgagcuucgcucucgagaaagugucgcuucucggaacagauaauguccgcgg	-3'	exp	
((((.....)))..((((((((((((((((.....(((((((.....(((((((.....((((.....))))..)))))))).)))))))).))))))..		reads	mm
cucucgagaaagugucgcuuau.....	3		1
cucggaagugucgcuucuc.....	5		0
				seq