



Figure 1.2. MicroRNA mechanism of action. MicroRNA orchestrates cellular pathway directly by regulating target messenger RNA (mRNA) translation having the affinity to the 3'-untranslated region (3'UTR). Partition of double-stranded microRNA into Ago1-RNA-induced Silencing Complex (RISC) will result in mRNA translational repression that consists of central mismatches in its binding sites. However, if the double-stranded microRNA partitions into Ago2-RISC, mRNA decay occurs but only in the presence of precise match/total complement to its target sequence.