



Fig. 1. Main features of miRNA biogenesis. RNA pol II transcripts containing miRNAs, primary (pri)-miRNAs are cleaved by the nuclear RNaseIII, Drosha, to release the stem loop pre-miRNA. Exportin moves the pre-miRNA to the cytoplasm. The cytoplasmic RNaseIII, Dicer, cleaves the loop leaving a dsRNA with 3' overhangs at each end. 5' terminus stability determines the active strand which separates and associates with the RNA-induced silencing complex (RISC) to form the active miRNA. The level of miRNA homology to the target mRNA determines the transcript fate. Adapted from Sontheimer and Carthew (7).