



Figure 8: Proposed model for the processing of miR319c in melon. A, The miR319c precursor is first partially cleaved in the 5' arm, DCL1 then continues to cut the precursor four more times in a loop-to-base direction, until the mature miR319c is finally released. Alternative $\#miR319c/miRNA^*$ duplex is unstable under this processing conditions. B, In cold-exposed plants the first partial cleavage is impaired promoting lower accuracy in the next four DCL1 mediated cuts (mainly cut 4). As consequence of this altered precursor processing, stable $\#miR319c/miRNA^*$ is inefficiently released and/or accumulated. In contrast, accumulation of alternative $\#miR319c$ is increased.