MELANOMA AND MELANOCYTIC NAEVI

MIR-140-3P ATTENUATES MELANOMA PROGRESSION BY TARGETING ABHD2 AND REGULATING AKT/P70S6K/JNK

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Accumulating evidence showed that aberrant miRNAs expression was involved in initiation and progression of melanoma. However, the investigation of different miRNAs in melanoma remain attractive. In this research, we demonstrated that miR-140-3p expression was decreased in melanoma tissues and cell lines. The the reduced miR-140-3p expression was obviously correlated with the patient survival. The ectopic overexpression of miR-140-3p suppressed cell proliferation, migration, invasion, cell cycle progression and promoted apoptosis in vitro and in vivo. Additionally, miR-140-3p could modulate ABHD2 by directly interacting to its 3'-UTR. In clinical samples of melanoma, miR-140-3p inversely correlated with ABHD2. The biological function of miR-140-3p on melanoma cells was abrogated by alternation of ABHD2 expression. The mechanism study results indicated that miR-140-3p significantly regulates the AKT/p70S6K and JNK signaling pathway. In summary, our research indexed that miR-140-3p had a function of tumor suppressor in regulating the proliferation, cell cycle and apoptosis of melanoma via targeting ABHD2. Hence, it may represent a novel potential therapeutic target and prognostic marker for melanoma.