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MiR-148a Down-regulates HPIP Expression to Mediate Immune Escape of Non-small Cell Lung Cancer A549 Cells

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ABSTRACT The researchers aimed to explore the role of miR-148a in mediating the immune escape of non-small cell lung cancer (NSCLC) A549 cells through its regulatory effects on hematopoietic pre-B-cell leukaemia transcription factor-interacting protein (HPIP) expression. For NSCLC patients, there was a relationship between their poor overall survival and high HPIP expression. When HPIP expression was regulated, compared with blank group, si-HPIP group had lower HPIP and sHPIP expression levels and proliferation ability. The lysis rate was higher in NK+anti-ILT-2 group than in NK group while higher in NK+Scramble+anti-ILT-2 group than in NK+Scramble group at the effector-to-target ratios of 10 and 5. NK+si-HPIP group exhibited an elevated lysis rate by contrast to NK group at the ratio of 10. The subcutaneous tumour in mice inoculated with A549 cells grew faster than in mice inoculated with si-HPIP-transfected cells. The miR-148a/HPIP axis mediates immune escape and influences cell proliferation to exert its carcinogenic effect on NSCLC.