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(57) Abstract: A hematopoietic stem cell (HSC), a hematopoietic progenitor cell (HPC) a myeloid/monocyte-committed progenitor cell, a macrophage or a monocyte comprising a vector wherein the vector comprises at least one mir-130a and/or mir-126 target sequence operably linked to a nucleotide sequence encoding interferon-alpha (IFNα) for use in treating or preventing a cancer in a patient, wherein the HSC, the HPC, the myeloid/monocyte-committed progenitor cell, the macrophage or the monocyte is used in combination with an immune checkpoint inhibitor and/or a tumor associated antigen (TAA)-specific T-cell.



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