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(71) Applicant: **PRECIGEN, INC.** [US/US]; 20358 Seneca Meadows Parkway, Germantown, Maryland 20876 (US).

(72) Inventors: **SABZEVARI, Helen**; 20358 Seneca Meadows Parkway, Germantown, Maryland 20876 (US). **BOLINGER, Cheryl**; 20358 Seneca Meadows Parkway, Germantown, Maryland 20876 (US). **SHAH, Rutul**; 20358 Seneca Meadows Parkway, Germantown, Maryland 20876 (US). **CHEN, ChangHung**; 20358 Seneca Meadows Parkway, Germantown, Maryland 20876 (US). **KURELLA, Vinodhbabu**; 20358 Seneca Meadows Parkway, Germantown, Maryland 20876 (US). **WESA, Amy**; 20358 Seneca Meadows Parkway, Germantown, Maryland 20876 (US).

(74) Agent: **YAO, Gene**; 1000 N. West Street, Suite 1500, Wilmington, Delaware 19801-1054 (US).

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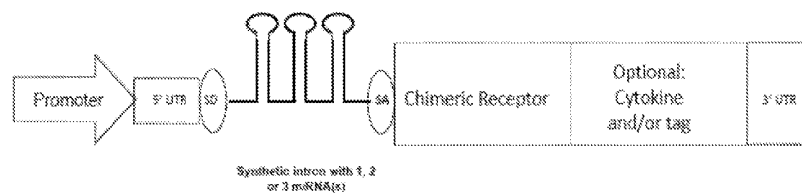
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(57) Abstract: A non-naturally occurring polynucleotide encoding a miRNA that inhibits the expression of an immune checkpoint protein. The polynucleotide may further encode a chimeric receptor, a cytokine, and/or a cell tag. A vector comprising the aforementioned polynucleotide. A modified immune effector cell comprising the aforementioned polynucleotide. Compositions and kits comprising the aforementioned polynucleotide and/or cell. A method for treating a subject suffering from a disease or disorder, comprising administering the aforementioned cell to a subject in need thereof. The use of the aforementioned cell in the manufacture of a medicament for the treatment of a disease or disorder. A method for the detection of a disease or disorder associated with the overexpression of an antigen in a subject. A method for the treatment of a disease or disorder comprising the serial administration of polynucleotides encoding a chimeric antigen receptor or a cell comprising the same.



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