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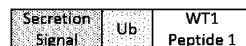


FIG. 1A

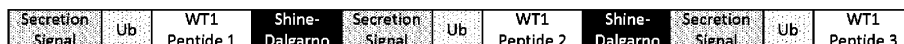


FIG. 1B

(57) Abstract: Provided herein are tumor-associated antigen peptides comprising heteroclitic mutations and fusion polypeptides comprising such heteroclitic peptide. Also provided are nucleic acids encoding such peptides and fusion polypeptides, recombinant bacteria or *Listeria* strains comprising such peptides, fusion polypeptides, or nucleic acids, and cell banks comprising such recombinant bacteria or *Listeria* strains. Also provided herein are methods of generating such peptides, fusion polypeptides, nucleic acids, and recombinant bacteria or *Listeria* strains. Also provided are immunogenic compositions, pharmaceutical compositions, and vaccines comprising such peptides, fusion polypeptides, nucleic acids, or recombinant bacteria or *Listeria* strains. Also provided are methods of inducing an anti-tumor-associated-antigen immune response in a subject, methods of inducing an anti-tumor or anti-cancer immune response in a subject, methods of treating a tumor or cancer in a subject, methods of preventing a tumor or cancer in a subject, and methods of protecting a subject against a tumor or cancer using such peptides, recombinant fusion polypeptides, nucleic acids, recombinant bacteria or *Listeria* strains, immunogenic compositions, pharmaceutical compositions, or vaccines.

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