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- (71) **Applicant: ADVAXIS, INC.** [US/US]; 305 College Road East, Princeton, New Jersey 08540 (US).
- (72) **Inventors: PETIT, Robert;** 149 Parsons Lane, Newtown, Pennsylvania 18940 (US). **PRINCIOTTA, Michael F.;** 222 Mercer Street, Hightstown, New Jersey 08520 (US). **CODER, Brandon;** 71 Clark Street #401, Trenton, New Jersey 08611 (US). **BALLI, David;** 2203 Evin Dr., Warrington, Pennsylvania 18976 (US).
- (74) **Agent: SCHILLING, Stephen H.** et al.; Alston & Bird LLP, Bank of America Plaza, 101 South Tryon Street, Suite 4000, Charlotte, North Carolina 28280-4000 (US).
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(54) **Title:** IMMUNOGENIC HETEROCLITIC PEPTIDES FROM CANCER-ASSOCIATED PROTEINS AND METHODS OF USE THEREOF

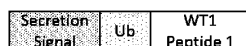


FIG. 1A

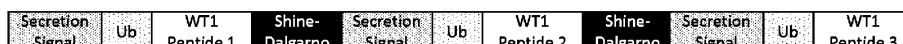


FIG. 1B

(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.

[Continued on next page]

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