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Patentkrav

1. Kombinasjonen av

(a) de fire WT1-peptidene YMFPNAPYL (SEQ IDNO:124), RSDELVRHHNMHQRNMTKL (SEQ ID NO:1), PGCNKRYFKLSHLQMHSRKHTG (SEQ ID NO: 2) og SGQAYMFPNAPYLPSCLES (SEQ ID NO: 125), og
(b) minst én antistoff-PD1-inhibitor,

til anvendelse ved behandling, reduksjon av forekomsten av eller fremkallelse av en immunrespons mot en WT1-uttrykkende kreft.

2. Kombinasjonen til anvendelse ifølge krav 1, hvori WT1-peptidene administreres med en bærer, et hjelpestoff eller en fortynner, eller en adjuvans som QS21, Montanide, Freunds komplett eller ufullstendig adjuvans, aluminiumfosfat, aluminiumhydroksid, BCG, cytokin eller alun.

3. Kombinasjonen til anvendelse ifølge krav 1, hvori PD1-inhibitoren er nivolumab, pembrolizumab, pidilizumab eller MEDI0680 (AMP-514).

4. Kombinasjonen til anvendelse ifølge krav 1, hvori ett eller flere av WT1-pepetidene administreres separat.

5. Kombinasjonen til anvendelse ifølge krav 1, hvori to eller flere av WT1-pepetidene administreres sammen i den samme formuleringen.

6. Kombinasjonen til anvendelse ifølge krav 1, hvori WT1-pepetidene og PD1-inhibitoren er tilstede i den samme sammensetningen.

7. Kombinasjonen til anvendelse ifølge krav 1, hvori WT1-peptidene og PD1-inhibitoren administreres samtidig eller i en overlappende plan, eller hvori den siste administrasjonen av WT1-peptidene er før den første administrasjonen av PD1-inhibitoren.

8. Kombinasjonen til anvendelse ifølge krav 1, hvori kreften er eggstokkreft, brysthinnekreft, leukemi, Wilms' tumor, akutt myelogenleukemi (AML), kronisk myeloid leukemi (CML), myelodysplastisk syndrom (MDS), melanom, magekreft, prostatakreft, gallegangskreft, kreft i urinveiene, glioblastom, bløtvevsarkom, osteosarkom eller ikke-småcellet lungekreft (NSCLC).

9. Kombinasjonen til anvendelse ifølge krav 1, hvori ett eller flere av peptidene NLMNLGATL (SEQ ID NO:21), WNLMNLGATLKGVAA (SEQ ID NO:26), LVRHHNMHQRNMTKL (SEQ ID NO:3), NKRYFKLSHLQMHSR (SEQ ID NO:4), SGQARMFPNAPYLPSCLES (SEQ ID NO:5), QARMFPNAPYLPSCL (SEQ ID NO:6), RMFPNAPYL (SEQ ID NO:7), SLGEQQYSV (SEQ ID NO:8), ALLPAVPSL (SEQ ID NO:9), NLGATLKGV (SEQ ID NO:10), DLNALLPAV (SEQ ID NO:11), GVFRGIQDV (SEQ ID NO:12), KRYFKLSHL (SEQ ID NO:13), ALLLRTPYS (SEQ ID NO:14), CMTWMQMNL (SEQ ID NO:15), NMHQRNMTK (SEQ ID NO:16), QMNLGATLK (SEQ ID NO:17), FMCAYPGCNK (SEQ ID NO:18), KLSHLQMHSR (SEQ ID NO:19), QAYMFPNAPYLPSCL (SEQ ID NO:126), YLGEQQYSV (SEQ ID NO:127), YLLPAVPSL (SEQ ID NO:128), YLGATLKGV (SEQ ID NO:129), YLNALLPAV (SEQ ID NO:130), GLRRGIQDV (SEQ ID NO:131), KLYFKLSHL (SEQ ID NO:132), ALLLRTPYV (SEQ ID NO:133), YMTWNQMNL (SEQ ID NO:134), NMYQRNMTK (SEQ ID NO:135), NMHQRVMTK (SEQ ID NO:136), NMYQRVMTK (SEQ ID NO: 137), QMYLGATLK (SEQ ID NO:138), QMNLGVTLK (SEQ ID NO:139), QMYLGVTLK (SEQ ID NO: 140), FMYAYPGCNK (SEQ ID NO:141), FMCAYPFCNK (SEQ ID NO:142), FMYAYPFCNK (SEQ ID NO:143), KLYHLQMHSR (SEQ ID NO:144), KLSHLQMHSK (SEQ ID NO:145), KLYHLQMHSK (SEQ ID NO:146), NQMNLGATL (SEQ ID NO:20), NYMNLGATL (SEQ ID NO:22),CMTWNQMNLGATLKG (SEQ ID NO:23), CMTWNLMNLGATLKG (SEQ ID NO:24), WNQMNLGATLKGVAA (SEQ ID NO:2 5), MTWNQMNLGATLKGV (SEQ ID NO:27), TWNQMNLGATLKGVA (SEQ ID NO:28), MTWNLMNLGATLKGV (SEQ ID NO:30), TWNLMNLGATLKGVA (SEQ ID NO:31), MTWNYMNLGATLKGV (SEQ IDNO:33), TWNYMNLGATLKGVA (SEQ ID NO:34), CMTWNQMNLGATLKGVA (SEQ ID NO:35), WNQMNLGAT (SEQ ID NO:36),

TWNQMN LGA (SEQ ID NO:37), MTWNQMNLG (SEQ ID NO:38), CMTWNLMNLGATLKGVA (SEQ ID NO:39), WNLMNLGAT (SEQ ID NO:40), MNLGATLKG (SEQ ID NO:41), CMTWNYMNLGATLKGVA (SEQ ID NO:43), GALRNPTAC (SEQ ID NO:46), GYLRNPTAC (SEQ ID NO:47), GALRNPTAL (SEQ ID NO:48), YALRNPTAC (SEQ ID NO:49), GLLRNPTAC (SEQ ID NO:50), RQRPHPGAL (SEQ ID NO:51), RYRPHPGAL (SEQ ID NO:52), YQRPHPGAL (SEQ ID NO:53), RLRPHPGAL (SEQ ID NO:54), RIRPHPGAL (SEQ ID NO:55), QFPNHSFKHEDPMGQ (SEQ ID NO:61), HSFKHEDPM (SEQ ID NO:63), HSFKHEDPY (SEQ ID NO:64), HSFKHEDPK (SEQ ID NO:65), KRPFMCAYPGCYKRY (SEQ ID NO:66), SEKRPFMCAYPGCNK (SEQ ID NO:67), KRPFMCAYPGCNK (SEQ ID NO:68), FMCAYPGCN (SEQ ID NO:69), FMCAYPGCY (SEQ ID NO:70), and FMCAYPGCK (SEQ ID NO:71) også administreres.

10. Kombinasjonen til anvendelse ifølge krav l1, hvori 200 mcg av hvert peptid emulgeres med Montanide ISA 51 VG og administreres subkutant i uke 0, 2, 4, 6, 8 og 10.

11. Kombinasjonen til anvendelse ifølge krav 10, hvori 3 mg/kg nivolumab administreres intravenøst i uke 0, 2, 4, 6, 8, 10 og 12.

12. Kombinasjonen til anvendelse ifølge krav 1, hvori behandlingen, reduksjonen i forekomsten av eller fremkallelsen av en immunrespons mot en WT1-uttrykkende kreft er større enn det som oppnås ved å administrere WT1-peptidene for seg selv eller den minst ene PD1-inhibitoren for seg selv.

13. Sammensetning omfattende de fire WT1-peptidene YMFPNAPYL (SEQ ID NO:124), RSDELVRHHNMHQRNMTKL (SEQ ID NO:1), PGCNKRYFKLSHLQMHSRKHTG (SEQ ID NO: 2) og SGQAYMFPNAPYLPSCLES (SEQ ID NO:125), og minst én antistoff-PD1-inhibitor.

14. Sammensetningen ifølge krav 13, hvori PD1-inhibitoren er nivolumab, pembrolizumab, pidilizumab eller MEDI0680 (AMP-514).