<110> ±±¾©¶«·½ºÙÌ©ÉúÎï¿Æ¼½ÓÐÏÞ¹«Ë¾ ±±¾©¾«ÒæÌ©Ïè¼¼Êõ·¢Õ¹ÓÐÏÞ¹«Ë¾
<120> Ò»ÖÖ¿¹PD-1µÄµ¥¿ËÂ¡¿¹Ìå¼°Æä»ñµÃ·½·¨

1£ºDFPD1-H1ÖØÁ´¿É±äÇøÐòÁÐ
1 QVQLVESGGG VVQPGRSLRL DCKASGITFS NNGMHWVRQA PGKGLEWVAV IWYDSTKKYY
61 ADSVKGRFTI SRDNSKNTLF LQMNSLRAED TAVYYCATNT DYWGQGTLVT VSS

2£ºDFPD1-H2ÖØÁ´¿É±äÇøÐòÁÐ
1 QVQLVESGGG VVQPGRSLRL DCKASGITFS NYGMHWVRQA PGKGLEWVAV IWYDSSRKYY
61 ADSVKGRFTI SRDNSKNTLF LQMNSLRAED TAVYYCATNN DYWGQGTLVT VSS

3£ºDFPD1-H3ÖØÁ´¿É±äÇøÐòÁÐ
1 QVQLVESGGG VVQPGRSLRL DCKASGITFS NNGMHWVRQA PGKGLEWVAV IWYDSSRKYY
61 ADSVKGRFTI SRDNSKNTLF LQMNSLRAED TAVYYCATNN DYWGQGTLVT VSS

4£ºDFPD1-H4ÖØÁ´¿É±äÇøÐòÁÐ
1 QVQLVESGGG VVQPGRSLRL DCKASGITFS NYGMHWVRQA PGKGLEWVAV IWYDGSKKYY
61 ADSVKGRFTI SRDNSKNTLF LQMNSLRAED TAVYYCATNN DYWGQGTLVT VSS

5£ºDFPD1-L1ÇáÁ´¿É±äÇøÐòÁÐ
1 DIQMTQSPSS LSASVGDRVT ITCRASQNIH SYLDWYQQKP GKAPKLLIYE ASTRASGVPS
61 RFSGSGSGTD FTLTISSLQP EDFATYYCQQ ALKLPITFGQ GTKVEIK

6£ºDFPD1-L2ÇáÁ´¿É±äÇøÐòÁÐ
1 DIQMTQSPSS LSASVGDRVT ITCRASQNVS NWLDWYQQKP GKAPKLLIYD ASNRATGVPS
61 RFSGSGSGTD FTLTISSLQP EDFATYYCQQ SRHIPLTFGQ GTKVEIK

7£ºDFPD1-L3ÇáÁ´¿É±äÇøÐòÁÐ
1 DIQMTQSPSS LSASVGDRVT ITCRASQSIH NYLDWYQQKP GKAPKLLIYN ASTRATGVPS
61 RFSGSGSGTD FTLTISSLQP EDFATYYCQQ ELHLPLTFGQ GTKVEIK

8£ºDFPD1-L4ÇáÁ´¿É±äÇøÐòÁÐ
1 DIQMTQSPSS LSASVGDRVT ITCRASQDIN NWLDWYQQKP GKAPKLLIYD ASTLATGVPS
61 RFSGSGSGTD FTLTISSLQP EDFATYYCQQ NVNLPLTFGQ GTKVEIK

9£ºDFPD1-L5ÇáÁ´¿É±äÇøÐòÁÐ
1 DIQMTQSPSS LSASVGDRVT ITCRASQDVR NYLDWYQQKP GKAPKLLIYG ASTRATGVPS
61 RFSGSGSGTD FTLTISSLQP EDFATYYCQQ DIDLPLTFGQ GTKVEIK

10£ºDFPD1-L6ÇáÁ´¿É±äÇøÐòÁÐ
1 DIQMTQSPSS LSASVGDRVT ITCRASQGIN SWLDWYQQKP GKAPKLLIYD ASTRATGVPS
61 RFSGSGSGTD FTLTISSLQP EDFATYYCQQ SYRLPLTFGQ GTKVEIK

11£ºDFPD1-L7ÇáÁ´¿É±äÇøÐòÁÐ
1 DIQMTQSPSS LSASVGDRVT ITCRASQSVS NYLDWYQQKP GKAPKLLIYD ASTRATGVPS
61 RFSGSGSGTD FTLTISSLQP EDFATYYCQQ NMQLPLTFGQ GTKVEIK

12£º¤Ï³ÉÇáÁ´CDR123Í»±ä¿â»ùÒò
1 GATATCCAGA TGACCCAGAG CCCGAGCAGC CTGAGCGCGA GCGTGGGTGA TCGCGTGACC
61 ATTACCTGCC GCGCGAGCCA GRRTRTCVRT AVCNBYCTGR MTTGGTATCA GCAGAAACCG
121 GGTAAAGCGC CGAAACTGTT AATTTATRVK GCCAGCAVCC KGSMGWCTGG CGTGCCGTCG
181 CGTTTTAGCG GCTCGGGTTC GGGCACCGAT TTTACCCTGA CCATCTCGAG CTTGCAGCCG
241 GAGGACTTCG CCACCTACTA TTGCCAGCAA NNSNNSVRBN NSCCANNSAC CTTCGGTCAG
301 GGCACCAAAG TGGAGATCAA A

13£º¤Ï³ÉÖØÁ´CDR123Í»±ä¿â»ùÒò
1 CAGGTGCAGC TGGTGGAGTC TGGGGGAGGC GTGGTCCAGC CTGGGAGGTC CCTGAGACTC
61 GATTGTAAGG CGTCTGGAAT CACCTTCAGT RVYTACKSGA TGMRYTGGGT CCGCCAGGCT
121 CCAGGCAAGG GGCTGGAGTG GGTGKCMKKY ATTARNKVYR RYGGCRRYWM YAMRTACTAT
181 GCAGACTCCG TGAAGGGCCG ATTCACCVVS NNYNNSNNSN NYNNSNNSHT KGATTACTGG
241 GGCCAGGGCA CCCTGGTCAC CGTCTCCTCA

14£ºCH(gamma 4µÄºã¶¨Çø)

ÖØÁ´ºã¶¨Çø*µ*Ä¹ËÜÕËáÐòÁÐ£º

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1       GTGTCCTCCG CCTCCACCAA GGGCCCTTCC GTGTTCCCTC TGGCCCCTTG CTCCCGCTCC
61      ACCTCCGAGT CCACCGCCGC CCTGGGCTGC CTGGTGAAGG ACTACTTCCC TGAGCCTGTG
121     ACCGTGTCCT GGAACTCCGG CGCCCTGACC TCCGGCGTGC ACACCTTCCC TGCCGTGCTG
181     CAGTCCTCCG GCCTGTACTC CCTGTCCTCC GTGGTGACCG TGCCTTCCTC CTCCCTGGGC
241     ACCAAGACCT ACACCTGCAA CGTGGACCAC AAGCCTTCCA ACACCAAGGT GGACAAGCGC
301     GTGGAGTCCA AGTACGGCCC TCCTTGCCCT CCTTGCCCTG CCCCTGAGTT CCTGGGCGGC
361     CCTTCCGTGT TCCTGTTCCC TCCTAAGCCT AAGGACACCC TGATGATCTC CCGCACCCCT
421     GAGGTGACCT GCGTGGTGGT GGACGTGTCC CAGGAGGACC CTGAGGTGCA GTTCAACTGG
481     TACGTGGACG GCGTGGAGGT GCACAACGCC AAGACCAAGC CTCGCGAGGA GCAGTTCAAC
541     TCCACCTACC GCGTGGTGTC CGTGCTGACC GTGCTGCACC AGGACTGGCT GAACGGCAAG
601     GAGTACAAGT GCAAGGTGTC CAACAAGGGC CTGCCTTCCT CCATCGAGAA GACCATCTCC
661     AAGGCCAAGG GCCAGCCTCG CGAGCCTCAG GTGTACACCC TGCCTCCTTC CCAGGAGGAG
721     ATGACCAAGA ACCAGGTGTC CCTGACCTGC CTGGTGAAGG GCTTCTACCC TTCCGACATC
781     GCCGTGGAGT GGGAGTCCAA CGGCCAGCCT GAGAACAACT ACAAGACCAC CCCTCCTGTG
841     CTGGACTCCG ACGGCTCCTT CTTCCTGTAC TCCCGCCTGA CCGTGGACAA GTCCCGCTGG
901     CAGGAGGGCA ACGTGTTCTC CTGCTCCGTG ATGCACGAGG CCCTGCACAA CCACTACACC
961     CAGAAGTCCC TGTCCCTGTC CCTGGGCAAG TAG
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ÖØÁ´ºã¶¨Çø*µ*Ä°±»ùËáÐòÁÐ£º

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1       VSSASTKGPS VFPLAPCSRS TSESTAALGC LVKDYFPEPV TVSWNSGALT SGVHTFPAVL
61      QSSGLYSLSS VVTVPSSSLG TKTYTCNVDH KPSNTKVDKR VESKYGPPCP PCPAPEFLGG
121     PSVFLFPPKP KDTLMISRTP EVTCVVVDVS QEDPEVQFNW YVDGVEVHNA KTKPREEQFN
181     STYRVVSVLT VLHQDWLNGK EYKCKVSNKG LPSSIEKTIS KAKGQPREPQ VYTLPPSQEE
241     MTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SRLTVDKSRW
301     QEGNVFSCSV MHEALHNHYT QKSLSLSLG
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15£ºCK(kappaÁ´*µ*Ä¹ã¶¨Çø)

kappaÁ´*µ*Ä¹ã¶¨Çø¹ËÜÕËáÐòÁÐ£º

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1       CGTACGGTGG CGGCGCCATC TGTCTTCATC TTCCCGCCAT CTGATGAGCA GTTGAAATCT
61      GGTACCGCTA GCGTTGTGTG CCTGCTGAAT AACTTCTATC CCAGAGAGGC CAAAGTACAG
121     TGGAAGGTGG ATAACGCCCT CCAATCGGGT AACTCCCAGG AGAGTGTCAC AGAGCAGGAC
181     AGCAAGGACA GCACCTACAG CCTCAGCAGC ACCCTGACGC TGAGCAAAGC AGACTACGAG
241     AAACACAAAG TCTACGCCTG CGAAGTCACC CATCAGGGCC TGAGCTCGCC CGTCACAAAG
301     AGCTTCAACA GGGGAGAGTG T
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kappaÁ´*µ*Ä¹ã¶¨Çø°±»ùËáÐòÁÐ£º

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1      RTVAAPSVFI FPPSDEQLKS GTASVVCLLN NFYPREAKVQ WKVDNALQSG NSQESVTEQD
61     SKDSTYSLSS TLTLSKADYE KHKVYACEVT HQGLSSPVTK SFNRGEC
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