

Time: 2024.05.01-2024.05.03

1. **Experiment:** 23 sequences design
2. **Time:** 2024.05.01-2024.05.03
3. **Member:** Yaqi Gao, Song Zhang, Xudong Tang
4. **Result:**

We designed two types of specific ICD CAR sequences. They were the tandem IL2R-ICD CAR and Charge-attracting IL2R-ICD CAR.

Table 1 23 CAR sequences

NO.	Sequence
1	<p>MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR ASQDISKYLNWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSGTDF TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLTMTNMDPVD TATYYCAKHYYYGGSYAMDYWGQTTVTVSSTTTPAPRPPTPAPTI ASQPLSLRPEACRPAAGGAVHTRGLDFACDIYWAPLAGTCGVLLL SLVITLYCKRGRKKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGG CELRVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDKRRGRD PEMGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGH DGLYQGLSTATKDTYDALHMQALPPRccccctcccccccccccccaacgttact ggccgaagccgcttgaataagccgggtgtgcgttgtctatatgttatttccaccatattgccgtctttggc aatgtgagggcccggaaacctggccctgtctcttgacgagcattcctaggggtcttccccctcgcgcaaa ggaatgcaaggctcttgaatgtcgtgaaggaagcagtcctctggaagctcttgaagacaacaacgtct gtagcgacccttgcaggcagcggaaacccccacctggcgacaggtgcctctgcggccaaaagccacg tgtatagatacacctgcaaaggcggcacaacccccagtgccacgttgtgagttggatagttgtgaaaga gtcaaatggctctcctcaagcgtattcaacaaggggctgaaggatgccagaaggtaccattgtatggg atctgatctggggcctcgggtgcacatgctttacatgtgtttagtcgaggttaaaaaacgtctaggcccccg aaccacggggacgtggtttctttgaaaaacacgatgataatagccacaaccMVSKGEELFT GVVPILVELDGDVNGHKFSVSGEGEDATYGKLTCLKFICTTGKLPV PWPTLVTTLYGVQCFSRYPDHMKQHDFKSAWPEGYVQERTIFFK DDGNYKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNNS HNVYIMADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTPIGDGP VLLPDNHLYSTQSALSADPNEKRDHMLLEFVTAAGITLGMDELY KTGA</p>
2	<p>MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR ASQDISKYLNWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSGTDF TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLTMTNMDPVD TATYYCAKHYYYGGSYAMDYWGQTTVTVSSTTTPAPRPPTPAPTI ASQPLSLRPEACRPAAGGAVHTRGLDFACDIYWAPLAGTCGVLLL SLVITLYCKRGRKKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGG CELNCRNTGPWLKKVLKCNTPDPSKFFSQLSSEHGGDVQKWLSSP FPSSSFSPGGLAPEISPLEVLERDKVTQLLQQDKVPEPASLSSNHSL TSCFTNQYFFFHLPDALEIEACQVYFTYDPYSEEDPDEGVAGAPT GSSPQLQPLSGEDDAYCTFPSRDDLLLSPSLLGGPSPSTAPGGSG</p>

Time: 2024.05.01-2024.05.03

AGEERMPPSLQERVPRDWDQPPLGPPTPGVPDLVDFQPPPELVLRE
AGEEVPDAGPREGVSFPWSRPPGQGEFRALNARLPLNTDAYLSLQE
LQGQDPHTLVRVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVL
DKRRGRDPEMGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGE
RRRGKGHDGLYQGLSTATKDTYDALHMQUALPPRccccctcccccccccc
cctaactgtactggccgaagccgcttgaataagccgggtgtgcgtttgtctatatgttatttccaccatattg
ccgtcttttggcaatgtgagggcccggaaacctggccctgtctcttgacgagcattcctaggggtcttccc
ctctcgcaaaggaatgcaaggtctgttgaatgtcgtgaaggaagcagttcctctggaagctcttgaagac
aaacaactgtctgtagcgacccttgcaggcagcggaaacccccacctggcgacaggtgcctctcgggcc
aaaagccactgtataagatacacctgcaaagggcgcacaacccccagtcacgttggatgtgagttggatagt
tgtgaaagagtgcaaatggctctctcaagcgtattcaacaaggggctgaaggatgccagaaggtacc
cattgtatgggatctgactggggcctcgggtcacatgctttacatgtttagtcgaggttaaaaaacgtct
aggcccccgaaaccaggggacgtggtttccttgaaaaacacgatgataatggccacaaccMVS
KGEELFTGVVPILVELDGDVNGHKFSVSGEGEDATYGKLTCLKFIC
TTGKLPVPWPTLVTTLYGVQCFSRYPDHMKQHDFKKSAMPEGYV
QERTIFFKDDGNYKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGH
KLEYNYNSHNVYIMADKQKNGIKVNFKIRHNIEDGSVQLADHYQQ
NTPIGDGPVLLPDNHYLSTQSALS KDPNEKRDHMLLEFVTAAGIT
LGMDELYKTGA

3

MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYLNWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSDF
TLTISRLEPEDIAVYQCQGNTPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLMTNMDPVD
TATYYCAKHYYGGSYAMDYWGQTTVTVSSTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDIYIWAFLAGTCGVLL
SLVITLYCKRGRKKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGG
CELERTMPRIPTLKNLEDLVTEYHGNFSAWSGVSKGLAESLQPDYS
ERLCLVSEIPPKGGALGEGPGASPCNQHSPYWAPPCYTLKPETRVKF
SRSADAPAYQQGQNQLYNELNLGRREEYDVLDKRRGRDPEMGGK
PRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRRGKGHDGLYQG
LSTATKDTYDALHMQUALPPRccccctccccccccccccccctaactgtactggccgaagc
cgcttgaataagccgggtgtgcgtttgtctatatgttatttccaccatattgccgtctttggcaatgtgagg
gccccgaaacctggccctgtctcttgacgagcattcctaggggtcttccccctctcgcaaaggaatgcaa
ggtctgttgaatgtcgtgaaggaagcagttcctctggaagctcttgaagacaacaacgtctgtagcgacc
cttgcaggcagcggaaacccccacctggcgacaggtgcctctcggccaaaagccactgtataagat
acactgcaaagggcgcacaacccccagtcacgttggatgtgagttggatagttgtgaaagagtgcaatggc
tctctcaagcgtattcaacaaggggctgaaggatgccagaaggtaccattgtatgggatctgactg
gggcctcgggtcacatgctttacatgtttagtcgaggttaaaaaacgtctaggcccccgaaaccagg
ggactgtggtttccttgaaaaacacgatgataatggccacaaccMVS KGEELFTGVVPIL
VELDGDVNGHKFSVSGEGEDATYGKLTCLKFICTTGKLPVPWPTLV
TTLYGVQCFSRYPDHMKQHDFKKSAMPEGYVQERTIFFKDDGNY
KTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNYNSHNVYI
MADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTPIGDGPVLLPD
NHYLSTQSALS KDPNEKRDHMLLEFVTAAGITLGMDELYKTGA

Time: 2024.05.01-2024.05.03

4 MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYLWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSGTDF
TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLTMNMDPVD
TATYYCAKHYYYGGSYAMDYWGQGTTVTVSSTTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDIYWAPLAGTCGVLLL
SLVITLYCKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGG
CELNCRNTGPWLKKVLKCNTPDPSKFFSLSSEHGGDVQKWLSSP
FPSSSFSPGGLAPEISPLEVLERDKVTQLLQQDKVPEPASLSSNHSL
TSCFTNQGYFFFHLPDALEIEACQVYFTYDPYSEEDPDEGVAGAPT
GSSPQLQPLSGEDDAYCTFPSRDDLLLFSPLLGGPSPPSTAPGGSG
AGEERMPPSLQERVPRDWDQPPLGPPTPGVPDLVDFQPPPELVLRE
AGEEVPDAGPREGVSPWSPRPPGQGEFRALNARLPLNTDAYLSLQE
LQGQDPHTLVERTMPRIPTLKNLEDLVTEYHGNFSAWSGVSKGLAE
SLQPDYSERLCLVSEIPPKGGALGEGPGASPCNQHSPYWAPPCYTL
KPETRVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDKRRGR
DPEMGGKPRRKNPQEGLYNELQDKMAEAYSEIGMKGERRRGKG
HDGLYQGLSTATKDTYDALHMQALPPRccccctccccccccccccctaacgtta
ctggccgaagccgcttgaataaggccggtgtgcttctctatatgtattttccaccatattgccgtctttg
gcaatgtgagggcccgaaacctggccctgtcttcttgacgagcattcctaggggtctttccccctcgcga
aaggaatgcaaggtctgtgaatgctggaaggaagcagttcctctggaagcttctgaagacaacaacg
tctgtagcgacccttgcaggcagcgaacccccacctggcgacaggtgcctctcggcctcggccaaaagcca
cgtgtataagatacactgcaaagcggcacaaccccagtgccacgttctgagttgagatgttgga
gagtaaatggctctcctcaagcgtattcaacaagggctgaaggaatgccagaaggtacccattgtatg
ggatctgatctgggcccctggtgcacatgctttacatgtgttagtcgaggttaaaaaacgcttagcccc
ccgaaccaggggacgtggtttctttgaaaaacacgatgataatagccacaaccMVSKGEEL
FTGVVPILVELDGDVNGHKFSVSGEGEGDATYGKLTLLKFICTTGKL
PVPWPTLVTTLYGVQCFSRYPDHMKQHDFFKSAMPEGYVQERTIF
FKDDGNYKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNY
NSHNVYIMADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTPIGD
GPVLLPDNHYLSTQSALS KDPNEKRDMVLEFVTAAGITLGMDE
LYKTGA

5 MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYLWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSGTDF
TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLTMNMDPVD
TATYYCAKHYYYGGSYAMDYWGQGTTVTVSSTTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDTVMIIFRIGMAVAIFCC
FFFPKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCELN
CRNTGPWLKKVLKCNTPDPSKFFSLSSEHGGDVQKWLSSPFPSS
FSPGGLAPEISPLEVLERDKVTQLLQQDKVPEPASLSSNHSLTSCFT
NQGYFFFHLPDALEIEACQVYFTYDPYSEEDPDEGVAGAPTGSSPQ
PLQPLSGEDDAYCTFPSRDDLLLFSPLLGGPSPPSTAPGGSGAGEER

Time: 2024.05.01-2024.05.03

MPPSLQERVPRDWDQPQLGPPTPGVPDLVDFQPPPELVREAGEEV
 PDAGPREGVSFPWSRPPGQGEFRALNARLPLNTDAYLSLQELQGG
 DPTHLVERTMPRIPTLKNLEDLVTEYHGNFSAWSGVSKGLAESLQP
 DYSERLCLVSEIPKGGALGEGPGASPCNQHSPYWAPPCYTLKPET
 RVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDKRRGRDPE
 MGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGHGDG
 LYQGLSTATKDTYDALHMQUALPPRccccctccccccccccccctaacgttactg
 cgaagccgcttgaataagccggtgtgcgtttgtctatatgtattttccaccatattgccgtctttggcaat
 gtgagggcccgaaacctggccctgtctcttgacgagcattcctaggggtctttccccctcgccaaagg
 aatgcaaggtctgtgaatgtcgtgaaggaagcagttcctctggaagctcttgaagacaaacaacgtctgt
 agcgacccttgcaggcagcggaaacccccacctggcgacaggtgcctctgcccgaacaaagccacgtg
 tataagatacacctgcaaaggcggcacaacccccagtgccacgttgtgagttggatagttgtgaaagagtc
 aatggctctcctcaagcgtattcaacaaggggctgaaggatgccagaaggtacccattgtatgggatc
 tgatctggggcctcggtgcacatgctttacatgtgttttagtcgaggttaaaaaacgtctagccccccgaa
 ccacggggacgtggtttctttgaaaaacacgatgataatagccacaaccMVSKGEELFTG
 VVPILVELDGDVNGHKFSVSGEGEGDATYGKLTLKFICTTGKLPVP
 WPTLVTTLYGVQCFSRYPDHMKQHDFFKSAMPEGYVQERTIFFK
 DDGNYKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNYS
 HNVYIMADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTPIGDGP
 VLLPDNHYLSTQSALSKDPNEKRDHMLLEFVTAAGITLGMDELY
 KTGA

6 MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
 ASQDISKYLNWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSGTDF
 TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
 GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
 LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVLTMTNMDPVD
 TATYYCAKHYYYGGSYAMDYWGQTTVTVSSTTTPAPRPPTPAPTI
 ASQPLSLRPEACRPAAGGAVHTRGLDFACDTVMIIFRIGMAVAIFCC
 FFFPKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCEL
 VKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDKRRGRDPEM
 GGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGHDDL
 YQGLSTATKDTYDALHMQUALPPRATNFSLLKQAGDVEENPGPLLA
 GLVAADAVASLLIVGAVFNCRNTGPWLKVKLCNTPDPSKFFSOLS
 SEHGGDVQKWLSSPFPSSSFSPGGLAPEISPLEVLERDKVTQLLLQ
 DKVPEPASLSSNHSLTSCFTNQGYFFFHLPDALEIEACQVYFTYDPY
 SEEDPDEGVAGAPTGSSPQLQPLSGEDDAYCTFPSRDDLLLFSPSL
 LGGPSPSTAPGGSGAGEERMPPSLQERVPRDWDQPQLGPPTPGVP
 DLVDFQPPPELVREAGEEVPDAGPREGVSFPWSRPPGQGEFRALN
 ARLPLNTDAYLSLQELQGGDPTHLVccccctccccccccccccctaacgttactg
 ccgaagccgcttgaataagccggtgtgcgtttgtctatatgtattttccaccatattgccgtctttggcaa
 tgtgagggcccgaaacctggccctgtctcttgacgagcattcctaggggtctttccccctcgccaaagg
 aatgcaaggtctgtgaatgtcgtgaaggaagcagttcctctggaagctcttgaagacaaacaacgtctgt
 agcgacccttgcaggcagcggaaacccccacctggcgacaggtgcctctgcccgaacaaagccacgtg
 tataagatacacctgcaaaggcggcacaacccccagtgccacgttgtgagttggatagttgtgaaagagtc
 aatggctctcctcaagcgtattcaacaaggggctgaaggatgccagaaggtacccattgtatgggatc

Time: 2024.05.01-2024.05.03

gcctgtcttcttgacgagcattcctaggggtcttcccctctcgccaaaggaatgcaaggtctgtgaatgt
cgtgaaggaagcagttcctctggaagcttctgaagacaaacaacgtctgtagcgacccttgcaggcagc
ggaacccccacctggcgacaggtgcctctgcggccaaaagccacgtgataagatacctgcaaaagg
cggcacaacccagtgccacgttgtagttggatagttggaaagagtaaatggctctcctcaagcgta
ttcaacaaggggtgaaggatgccagaaggtacccattgtatgggatctgatctggggcctcggtgca
catgctttacatgtgttagtcgaggttaaaaaacgtctagggccccgaaccacggggacgtggtttcct
ttgaaaaacagatgataatggccacaaccMVSKGEELFTGVVPILVELDGDVNG
HKFSVSGEGEGDATYGKLTCLKFICTTGKLPVWPVTLVTTLYGVQC
FSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYKTRAEVKFE
GDTLVNRIELKGIDFKEDGNILGHKLEYNYNHNVYIMADKQKNGI
KVNFKIRHNIEDGSVQLADHYQQNTPIGDGPVLLPDNHYLSTQSAL
SKDPNEKRDHMLLEFVTAAGITLGMDELYKTGA

10

MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYLWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSGTDF
TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLMTNMDPVD
TATYYCAKHYYGGSYAMDYWGQTTVTVSSTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDLVPVFCGLLVAKSLVLS
ALLVKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCEL
NCRNTGPWLKKVLKCNTPDPSKFFSQLSSEHGGDVQKWLSSPFPSS
SFSPGGLAPEISPLEVLERDKVTQLLQQDKVPEPASLSSNHSLSLSCF
TNQGYFFFHLPDALEIEACQVYFTYDPYSEEDPDEGVAGAPTGSSP
QPLQPLSGEDDAYCTFSPSRDLLLLFSPSLLGGPSPPSTAPGGSGAGE
ERMPPSLQERVPRDWDQPLGPPTPGVPLVDFQPPPELVREAGE
EVPDAGPREGVSFPWSRPPGQGEFRALNARLPLNTDAYLSLQELQG
QDPTHLVERTMPRIPTLKNLEDLVTEYHGNFSAWSGVSKGLAESLQ
PDYSERLCLVSEIPPKGALGEGPGASPCNQHSPYWAPPCYTLKPET
RVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDRRGRDPE
MGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGHGDG
LYQGLSTATKDTYDALHMQALPPRccccctcctccccccccctaaagttactgac
cgaagcccttgaataagccggtgtgcttctctatatgtattttccaccatattgccgcttttggcaat
gtgagggcccggaaacctggcctgtcttcttgacgagcattcctaggggtcttcccctctcgccaaagg
aatgcaaggtctgtgaatgtcgtgaaggaagcagttcctctggaagcttctgaagacaaacaacgtctgt
agcgacccttgcaggcagcggaaacccccacctggcgacaggtgcctctgcggccaaaagccacgtg
tataagatacactgcaaaggcggcacaacccagtgccacgttgtagttggatagttggaaagagtc
aaatggctctcctcaagcgtattcaacaagggctgaaggatgccagaaggtacccattgtatgggatc
tgatctggggcctcgggtgcatgctttacatgtgttagtcgaggttaaaaaacgtctagggccccgaa
ccacggggacgtggtttctttgaaaaacacgatgataatggccacaaccMVSKGEELFTG
VVPILVELDGDVNGHKFSVSGEGEGDATYGKLTCLKFICTTGKLPV
WPTLVTTLYGVQCFSRYPDHMKQHDFFKSAMPEGYVQERTIFFK
DDGNYKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNYNH
NVYIMADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTPIGDGP
VLLPDNHYLSTQSALSADPNEKRDHMLLEFVTAAGITLGMDELY
KTGA

Time: 2024.05.01-2024.05.03

11 MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYLWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGGTDF
TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLMTNMDPVD
TATYYCAKHYYGGSYAMDYWGQTTVTVSSTTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDLVPVFCGLLVAKSLVLS
ALLVKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCEL
RVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDRRGRDPE
MGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGHGDG
LYQGLSTATKDTYDALHMQUALPPRATNFSLLKQAGDVEENPGPGV
LAGIVMGDLVLTVLIALANCRNTGPWLKKVLCNTPDPSKFFSOLS
SEHGGDVQKWLSSPFPSSSFSPPGLAPEISPLEVLERDKVTQLLLQQ
DKVPEPASLSSNHSLSCTFNQGYFFFHLPDALEIEACQVYFTYDPY
SEEDPDEGVAGAPTGSSPQLQPLSGEDDAYCTFPSRDDLLLFSPSL
LGGSPSTAPGGSGAGEERMPPSLQERVPRDWDQPLGPPTPGVP
DLVDFQPPPELVREAGEEVPDAGPREGVSPWSPRPPGQGEFRALN
ARLPLNTDAYLSLQELQGDPHTLVccccctcccccccccccccaacgttactgg
ccgaagccgcttgaataaggccggtgtgcttcttatatgttatttccaccatattgccgtcttttggcaa
tgtgagggcccggaaacctggccctgtctcttgacgagcattcctaggggtcttccccctcgcgcaag
aatgcaaggctctgtgaatgctggaaggaagcagttcctctggaagctcttgaagacaacaacgtctgt
agcgaccttgcaggcagcgaacccccacctggcgacaggtgcctctgcccgaagaccacgtg
tataagatacacctgcaaggcggcacaacccccagtcacggtgtgagttggatagttgtggaagagtc
aatggctctcctcaagcgtattcaacaagggctgaaggtgcccagaaggtacccattgtatgggatc
tgatctggggcctcgggtgcacatgctttacatgtgttagtcgaggttaaaaaacgtctagccccccgaa
ccacggggacgtggtttccttgaaaacacgatgataatggccacaaccMVSKEELFTG
VVPILVELDGDVNGHKFSVSGEGEGDATYGKLTCLKFICTTGKLPVP
WPTLVTTLYGVQCFSRYPDHMKQHDFKSAPEGYVQERTIFFK
DDGNYKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNYS
HNVYIMADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTPIGDGP
VLLPDNHYLSTQSALS KDPNEKRDMVLLFVTAAGITLGMDELY
KTGA

12 MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYLWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGGTDF
TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLMTNMDPVD
TATYYCAKHYYGGSYAMDYWGQTTVTVSSTTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDLVPVFCGLLVAKSLVLS
ALLVKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCEL
RVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDRRGRDPE
MGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGHGDG
LYQGLSTATKDTYDALHMQUALPPRATNFSLLKQAGDVEENPGPGV
LAGIVMGDLVLTVLIALAERTMPRIPTLKNLEDLVTEYHGNFSAWS
GVSKGLAESLQPDYSERLCLVSEIPPKGALGEGPGASPCNQHSY

Time: 2024.05.01-2024.05.03

WAPPCYTLKPETcccctctccctccccccccctaacgttactggccgaagccgcttgaataag
gccggtgtgcgtttgtctatatgttatttccaccatattgccgtctttggcaatgtgagggcccgaaacctg
gcctgtcttctgacgagcattcctaggggtcttcccctctcgccaaaggaatgcaaggtctgtgaatgt
cgtgaaggaagcagttcctctggaagcttctgaagacaaacaacgtctgtagcgaccttgcaggcagc
ggaacccccacctggcgacaggtgcctctgcggccaaaagccacgtgtataagatacactgcaaaagg
cggcacaacccccagtgccacgtgtgagttggatagttgtgaaagagtcaaatggctctcctcaagcgt
tcaacaaggggctgaaggatgccagaaggtacccattgtatgggatctgatctggggcctcgggtgca
catgctttacatgtgttagtcgaggttaaaaaacgtctagggccccgaaccacggggacgtggtttcct
tgaaaaacacgatgataatagccacaaccMVSKGEELFTGVVPILVELDGDVNG
HKFSVSGEGEGDATYGKLTCLKFICTTGKLPVPWPTLVTTLYGVQC
FSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYKTRAEVKFE
GDTLVNRIELKGIDFKEDGNILGHKLEYNYNSHNVYIMADKQKNGI
KVNFKIRHNIEDGSVQLADHYQNTPIGDGPVLLPDNHYSTQSAL
SKDPNEKRDMVLEFVTAAGITLGMDELYKTGA

13

MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYLNWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGGTDF
TLTISRLEPEDIAVYYCQGNLTPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLTMNMDPVD
TATYYCAKHYYYGGSYAMDYWGQTTVTVSSTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDLVPVFCGLLVAKSLVLS
ALLVKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCEL
RVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDRRGRDPE
MGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGHGD
LYQGLSTATKDTYDALHMQUALPPRATNFSLLKQAGDVEENPGPGV
LAGIVMGDLVLTVLIALANCRNTGPWLKVKLKNTPDPSKFFSOLS
SEHGGDVQKWLSSPFPSSSFSPGGLAPEISPLEVLERDKVTQLLQ
DKVPEPASLSSNHSLSLSCFTNQGYFFFHLPDALEIEACQVYFTYDPY
SEEDPDEGVAGAPTGSSPQLQPLSGEDDAYCTFSPRDDLFLFSPSL
LGGPSPSTAPGGSGAGEERMPPSLQERVPRDWDPOPLGPPTPGVP
DLVDFQPPPELVLEAGEEVPDAGPREGVSFPSRPPGQGEFRALN
ARLPLNTDAYLSLQELQGDPHTLVERTMPRIPTLKNLEDLVTEYH
GNFSAWSGVSKGLAESLQPDYSERLCLVSEIPPKGGALGEGPGASP
CNQHSPYWAPPCYTLKPETcccctctccctccccccccctaacgttactggccgaagcc
gcttgaataagccggtgtgcgtttgtctatatgttatttccaccatattgccgtctttggcaatgtgaggg
cccgaaacctggccctgtcttctgacgagcattcctaggggtcttcccctctcgccaaaggaatgcaag
gtctgtgaatgtcgtgaaggaagcagttcctctggaagcttctgaagacaaacaacgtctgtagcgacc
ttgcaggcagcggaaacccccacctggcgacaggtgcctctgcggccaaaagccacgtgtataagata
cacctgcaaaagcggcacaacccccagtgccacgtgtgagttggatagttgtgaaagagtcaaatggt
ctcctcaagcgtattcaacaaggggctgaaggatgccagaaggtacccattgtatgggatctgatctgg
ggcctcgggtcacatgctttacatgtgttagtcgaggttaaaaaacgtctagggccccgaaccacggg
gacgtggtttccttgaaaaacacgatgataatagccacaaccMVSKGEELFTGVVPILV
ELDGDVNGHKFSVSGEGEGDATYGKLTCLKFICTTGKLPVPWPTLV
TLTYGVQCFSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYK
TRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNYNSHNVYIM

Time: 2024.05.01-2024.05.03

14 ADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTPIGDGPVLLPDN
HYLSTQSALS KDPNEKRDMVLEFVTAAGITLGMDELYKTGA
MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYL N WYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSGTDF
TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLTMNMDPVD
TATYYCAKHYYGGSYAMDYWGQTTVTVSSTTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDLVPVFCGLLVAKSLVLS
ALLVKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCEL
RVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDRRGRDPE
MGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGK GHDG
LYQGLSTATKDTYDALHMQUALPPRATNFSLLKQAGDVEENPGPGV
LAGIVMGDLVLTVLIALANCRNTGPWLKKVLKCNTPDPSKFFS QLS
SEHGGDVQKWLSSPFPSSSFS PGGLAPEISPLEVLERDKVTQLLQ
DKVPEPASLSSNHSLTSCFTNQGYFFFHLPDALEIEACQVYFTYDPY
SEEDPDEGVAGAPTGSSPQLPLSGEDDAYCTFPSRDDLLLFPSL
LGGPSPSTAPGGSGAGEERMPPSLQERVPRDWDQPPLGPPTPGVP
DLVDFQPPPELVLEAGEEVPDAGPREGV SFPWSRPPGQGEFRALN
ARLPLNTDAYLSLQELQGDPHTLVATNFSLLKQAGDVEENPGPGV
LAGIVMGDLVLTVLIALAERTMPRIPTLKNLEDLVTEYHGNFSAWS
GVSKGLAESLQPDYSERLCLVSEIPP KGGALGEGPGASPCNQHSPY
WAPPCYTLKPETccccctccccccccccccctaacgttactggccgaagccgcttgaataag
gcccgtgtgcgtttgtctatatgttatttccacatattgccgtctttggcaatgtgagggcccgaaacctg
gcctgtcttctgacgagcattcctaggggtcttccccctcgcgcaaaaggaatgcaaggtctgtgaatgt
cgtgaaggaagcagttcctctggaagctcttgaagacaacaacgtctgtagcgacccttgcaggcagc
ggaacccccacctggcgacaggtgcctctgcggccaaaagccacgtgataagataacctgcaaaag
cggcacaacccagtgccacgtgtgagttggatagttgtgaaagagtcaaatggctctcctcaagcgt
ttaacaagggctgaagatgccagaaggtacccattgtatgggatctgactggggcctcgggtgca
catgctttacatgtgttagtcgaggttaaaaaacgtctagccccccgaaccacggggacgtggtttcct
ttgaaaaacacgatgataatgcccacaaccMVSKGEELFTGVVPIVVELDGDVNG
HKFSVSGEGEGDATYGKLT LKFICTTGKLPVPWPVTLVTTLT YGVQC
FSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYKTRA EVKFE
GDTLVNRIELKGIDFKEDGNILGHKLEYNYNSHNVYIMADKQKNGI
KVNFKIRHNIEDGSVQLADHYQQNTPIGDGPVLLPDNHYLSTQSAL
SKDPNEKRDMVLEFVTAAGITLGMDELYKTGA

15 MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYL N WYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSGTDF
TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLTMNMDPVD
TATYYCAKHYYGGSYAMDYWGQTTVTVSSTTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDMGLAFLVLVALVWFLV
EDWLSKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCE
LNCRNTGPWLKKVLKCNTPDPSKFFS QLSSEHGGDVQKWLSSPFP

Time: 2024.05.01-2024.05.03

SSFSPGGLAPEISPLEVLERDKVTQLLLQQDKVPEPASLSSNHSLSLTS
FTNQGYFFFHLPDALEIEACQVYFTYDPYSEEDPDEGVAGAPTGSSP
QPLQPLSGEDDAYCTFPSRDDLLLFSPLLGGPSPSTAPGGSGAGE
ERMPPSLQERVPRDWDQPPLGPPTPGVPLVDFQPPPELVREAGE
EVPDAGPREGVSFPWSRPPGQGEFRALNARLPLNTDAYLSLQELQG
QDPTHLVERTMPRIPTLKNLEDLVTEYHGNFSAWSGVSKGLAESLQ
PDYSERLCLVSEIPPKGGALGEGPGASPCNQHSPYWAPPCYTLKPET
RVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDKRRGRDPE
MGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGHG
LYQGLSTATKDTYDALHMQUALPPRccccctccctccccccccctaacgttactggc
cgaagccgcttgaataagccgggtgtgcggttctctatatgttatttccaccatattgccgtctttggcaat
gtgagggcccgaaacctggccctgtctcttgacgagcattcctaggggtctttccctctcgccaaagg
aatgcaaggtctgtgaatgtcgtgaaggaagcagttcctctggaagcttctgaagacaaacaacgtctgt
agcgacccttgcaggcagcggaaacccccacctggcgacaggtgcctctgcccgaacaaagccacgtg
tataagatacacctgcaaagggcacaacccccagtgccacgttgtgagttgagatgtgtggaagagtc
aaatggctctcctcaagcgtattcaacaaggggctgaaggatgccagaaggtacccattgtatgggatc
tgatctggggcctcgggtcacatgctttacatgtgttagtcgaggttaaaaaacgtctagccccccgaa
ccacggggacgtggtttccttgaacacacgatgataatagccacaaccMVSKGEELFTG
VVPILVELDGDVNGHKFSVSGEGEGDATYGKLTCLKFICTTGKLPVP
WPTLVTTLYGVQCFSRYPDHMKQHDFFKSAMPEGYVQERTIFFK
DDGNYKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNYS
HNVYIMADKQKNGIKVNFKIRHNIEDGSVQLADHYQONTPIGDGP
VLLPDNHYLSTQSALSKDPNEKRDHMLLEFVTAAGITLGMDELY
KTGA

16

MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYLNWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSTDF
TLTISRLEPEDIAVYYCQOGNTLPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLTCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLMTNMDPVD
TATYYCAKHYYYGGSYAMDYWGQTTVTVSSTTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDMGLAFLVLVALVWFLV
EDWLSKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCE
LRVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDKRRGRDPE
MGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGHG
LYQGLSTATKDTYDALHMQUALPPRATNFSLLKQAGDVEENPGLC
YLLDGILFIYGVILTALFLNCRNTGPWLKLVLCNTPDPSKFFSOLS
SEHGGDVQKWLSSPFPSSSFSPGGLAPEISPLEVLERDKVTQLLLQQ
DKVPEPASLSSNHSLSLTSFTNQGYFFFHLPDALEIEACQVYFTYDPY
SEEDPDEGVAGAPTGSSPQPLQPLSGEDDAYCTFPSRDDLLLFSPLL
LGGPSPSTAPGGSGAGEERMPPSLQERVPRDWDQPPLGPPTPGVP
DLVDFQPPPELVREAGEEVPDAGPREGVSFPWSRPPGQGEFRALN
ARLPLNTDAYLSLQELQGQDPTHLVccccctccctccccccccctaacgttactgg
ccgaagccgcttgaataagccgggtgtgcggttctctatatgttatttccaccatattgccgtctttggcaa
tgtgagggcccgaaacctggccctgtctcttgacgagcattcctaggggtctttccctctcgccaaagg
aatgcaaggtctgtgaatgtcgtgaaggaagcagttcctctggaagcttctgaagacaaacaacgtctgt

Time: 2024.05.01-2024.05.03

agcgacccttgcaggcagcggaaacccccacctggcgacaggtgcctctgcgccaaaagccacgtg
tataagatacacctgcaaaggcggcacaacccagtgccacgttgtagtgatagttggaagagtc
aaatggctctcctcaagcgtattcaacaaggggctgaaggatgccagaaggtacccattgtatgggatc
tgatctggggcctcggtgcacatgctttacatgtgtttagtcgaggttaaaaaaacgtctagggccccgaa
ccacggggacgtggtttccttggaaaacacgatgataatggccacaaccMVSKGEELFTG
VVPILVELDGDVNGHKFSVSGEGEGDATYGKLTCLKFICTTGKLPVP
WPTLVTTLYGVQCFSRYPDHMKQHDFFKSAMPEGYVQERTIFFK
DDGNYKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNYN
SHNVYIMADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTPIGDGP
VLLPDNHYLSTQSALS KDPNEKRDHMLLEFVTAAGITLGMDELY
KTGA

17 MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYLWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSGTDF
TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLMTNMDPVD
TATYYCAKHYYYGGSYAMDYWGQTTVTVSSTTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDMGLAFLVLVALVWFLV
EDWLSKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCE
LRVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDKRRGRDPE
MGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGGHDG
LYQGLSTATKDTYDALHMQUALPPRATNFSLLKQAGDVEENPGPLC
YLLDGILFIYGVILTALFLERTMPRIPTLKNLEDLVTEYHGNFSAWSG
VSKGLAESLQPDYSERLCLVSEIPPKGGALGEGPGASPCNQHSPYW
APPCYTLKPETccctctccctccccccccctaacgttactggccgaagccgcttgaataagg
ccggtgtgcgttctctatattttccaccatattgcccgtctttggcaatgtgagggcccggaaacctgg
ccctgtctcttgacgagcattcctaggggtcttccccctctcgccaaaggaatcaaggtctgttgaatgc
gtgaaggaagcagttcctctggaagctctgaagacaacaacgtctgtagcgacccttgcaggcagcg
gaacccccacctggcgacaggtgcctctgcccgaagccacgtgtataagatacacctgcaaaggc
ggcacaacccagtgccacgttgtagtgatagttgtgaaagagtcataatggctctcctcaagcgtatt
caacaaggggctgaaggatgccagaaggtacccattgtatgggatctgatctggggcctcggtgcac
atgctttacatgtgtttagtcgaggttaaaaaaacgtctagggccccgaaccacggggacgtggtttcctt
tgaaaaacacgatgataatggccacaaccMVSKGEELFTGVVPILVELDGDVNG
HKFSVSGEGEGDATYGKLTCLKFICTTGKLPVPWPTLVTTLYGVQC
FSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYKTRAEVKFE
GDTLVNRIELKGIDFKEDGNILGHKLEYNYNSHNVYIMADKQKNGI
KVNFKIRHNIEDGSVQLADHYQQNTPIGDGPVLLPDNHYLSTQSAL
SKDPNEKRDHMLLEFVTAAGITLGMDELYKTGA

18 MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYLWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSGTDF
TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLMTNMDPVD
TATYYCAKHYYYGGSYAMDYWGQTTVTVSSTTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDMGLAFLVLVALVWFLV

Time: 2024.05.01-2024.05.03

EDWLSKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCE
LRVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDKRRGRDPE
MGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGHG
LYQGLSTATKDTYDALHMQUALPPRATNFSLLKQAGDVEENPGPLC
YLLDGILFIYGVILTALFLNCRNTGPWLKVKVLCNTPDPSKFFSOLS
SEHGGDVQKWLSSPFPSSSFSPGGLAPEISPLEVLERDKVTQLLLQQ
DKVPEPASLSSNHSLTSCFTNQGYFFFHLPDALEIEACQVYFTYDPY
SEEDPDEGVAGAPTGSSPQLQPLSGEDDAYCTFPSRDDLLLFSPL
LGGSPSTAPGGSGAGEERMPPSLQERVPRDWDQPPLGPPTPGVP
DLVDFQPPPELVREAGEEVPDAGPREGVSFPWSRPPGQGEFRALN
ARLPLNTDAYLSLQELQGDPHTLVERTMPRIPTLKNLEDLVTEYH
GNFSAWSGVSKGLAESLQPDYSERLCLVSEIPPKGGALGEGPGASP
CNQHSPYWAPPCYTLKPETccccctccccccccccccctaacgttactggccgaagcc
gcttgaataaggccggtgtgcgtttgtctatatgttatttccaccatattgccgtcttttggcaatgtgaggg
cccgaaacctggccctgtctcttgacgagcattctaggggtcttccccctcgccaaggaatgcaag
gtctgtgaatgtcgtgaaggaagcagttcctctggaagctcttgaagacaacaacgtctgtagcgacc
tttgaggcagcggaaacccccactggcgacaggtgectctcgccgcaaaagccactgtataagata
cacctgcaaaagcggcacaacccccagtcacggtgtgagttggatagttgtgaaagagcaaatggct
ctctcaagcgtattcaacaaggggctgaagatgcccagaaggtacccattgtatgggatctgatctgg
ggcctcggcgacatgctttacatgttttagtcgaggttaaaaaacgtctaggccccccgaaccacggg
gacgtggtttctttgaaaaacacgatgataatggccacaaccMVSKGEELFTGVVPILV
ELDGDVNGHKFSVSGEGDATYGKLTCLKFICTTGKLPVPWPTLVT
TLTYGVQCFSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYK
TRAEVKFEGDTLVNRIELKIDFKEDGNILGHKLEYNYNNSHNVYIM
ADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTPIGDGPVLLPDN
HYLSTQSALS KDPNEKRDMVLEFVTAAGITLGMDELYKTGA

19

MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYLWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSGTDF
TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVLTMTNMDPVD
TATYYCAKHYYYGGSYAMDYWGQTTVTVSSTTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDMGLAFLVLVALVWFLV
EDWLSKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCE
LRVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDKRRGRDPE
MGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGHG
LYQGLSTATKDTYDALHMQUALPPRATNFSLLKQAGDVEENPGPLC
YILDAILFLYGIVLTLTYCNCRNTGPWLKVKVLCNTPDPSKFFSOLS
SEHGGDVQKWLSSPFPSSSFSPGGLAPEISPLEVLERDKVTQLLLQQ
DKVPEPASLSSNHSLTSCFTNQGYFFFHLPDALEIEACQVYFTYDPY
SEEDPDEGVAGAPTGSSPQLQPLSGEDDAYCTFPSRDDLLLFSPL
LGGSPSTAPGGSGAGEERMPPSLQERVPRDWDQPPLGPPTPGVP
DLVDFQPPPELVREAGEEVPDAGPREGVSFPWSRPPGQGEFRALN
ARLPLNTDAYLSLQELQGDPHTLVccccctccccccccccccctaacgttactgg
ccgaagccgcttgaataaggccggtgtgcgtttgtctatatgttatttccaccatattgccgtcttttggcaa

Time: 2024.05.01-2024.05.03

tftgagggcccggaaacctggccctgtcttctgacgagcattcctaggggtcttccctctcgccaaagg
 aatgcaaggctgtgtaatgctggaaggaagcagttcctctggaagcttctgaagacaaacaacctgtgt
 agcgacccttgcaggcagcggaaacccccacctggcgacaggtgcctctgcccgaagccacgtg
 tataagatacacctgcaaaggcggcacaacccccagtgccacgtgtgagttggatagttgtgaaagagtc
 aatggctctcctcaagcgtattcaacaaggggctgaaggatgccagaaggtacccattgtatgggatc
 tgatctggggcctcgggtgcacatgctttacatgtgttagtcgaggttaaaaaacgtctagccccccgaa
 ccacggggacgtggtttccttggaaaacacgatgataatggccacaaccMVSKGEELFTG
 VVPILVELDGDVNGHKFSVSGEGEGDATYGKLTCLKFICTTGKLPVP
 WPTLVTTLYGVQCFSRYPDHMKQHDFFKSAMPEGYVQERTIFFK
 DDGNYKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNYS
 HNVYIMADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTPIGDGP
 VLLPDNHYLSTQSALS KDPNEKRDMVLLFVTAAGITLGMDELY
 KTGA

20 MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
 ASQDISKYLNWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSGTDF
 TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
 GGSQVTLRESGPALVKPTQTLTCTFSGVSLPDYGVSWIRQPPGKA
 LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVLTMTNMDPVD
 TATYYCAKHYYGGSYAMDYWGQTTVTVSSTTTPAPRPPTPPTI
 ASQPLSLRPEACRPAAGGAVHTRGLDFACDMGLAFLVLVALVWFLV
 EDWLSKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCE
 LRVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDKRRGRDPE
 MGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGHG
 LYQGLSTATKDTYDALHMQUALPPRATNFSLLKQAGDVEENPGPLC
 YILDAILFLYGIVLTLLYCERTMPRIPTLKNLEDLVTEYHGNFSAWSG
 VSKGLAESLPDYSERLCLVSEIPPKGGALGEGPGASPCNQHSPYW
 APPCYTLKPE Tcccctctccctccccccccctaacgttactggccgaagccgcttgaataagg
 ccggtgtgcgtttgtctatatgtattttccaccatattgccgtctttggcaatgtgagggcccggaaacctgg
 ccctgtcttctgacgagcattcctaggggtcttccctctcgccaaaggaatgcaaggtctgtgtaatgct
 gtgaaggaagcagttcctctggaagcttctgaagacaaacaacgtctgtagcgacccttgcaggcagcg
 gaacccccacctggcgacaggtgcctctgcccgaagccacgtgtataagatacacctgcaaaggc
 ggcacaacccccagtgccacgtgtgagttggatagttgtgaaagagtcfaatggctctcctcaagcgtatt
 caacaaggggctgaaggatgccagaaggtacccattgtatgggatctgatctggggcctcgggtgcac
 atgctttacatgtgttagtcgaggttaaaaaacgtctagccccccgaaccacggggacgtggtttcctt
 tgaaaaacacgatgataatggccacaaccMVSKGEELFTGVVPILVELDGDVNG
 HKFSVSGEGEGDATYGKLTCLKFICTTGKLPVPWPTLVTTLYGVQC
 FSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYKTRAEVKFE
 GDTLVNRIELKGIDFKEDGNILGHKLEYNYSHNVYIMADKQKNGI
 KVNFKIRHNIEDGSVQLADHYQQNTPIGDGPVLLPDNHYLSTQSAL
 SKDPNEKRDMVLLFVTAAGITLGMDELYKTGA

21 MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
 ASQDISKYLNWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSGTDF
 TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
 GGSQVTLRESGPALVKPTQTLTCTFSGVSLPDYGVSWIRQPPGKA
 LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVLTMTNMDPVD

Time: 2024.05.01-2024.05.03

ARLPLNTDAYLSLQELQGQDPHTLVATNFSLLKQAGDVEENPGPLC
YLLDGILFIYGVILTALFLERTMPRIPTLKNLEDLVTEYHGNFSAWSG
VSKGLAESLQPDYSERLCLVSEIPPKGGALGEGPGASPCNQHSPYW
APPCYTLKPETcccctctcctccccccccctaacgttactggccgaagccgcttgaataagg
ccggtgtgcgtttgtctatatgttattttccaccatattgccgtcttttgcaatgtgagggcccggaaacctgg
ccctgtctcttgacgagcattcctaggggtctttccctctcgccaaaggaatgcaaggctgttgaatgtc
gtgaaggaagcagttcctctggaagcttctgaagacaaacaacgtctgtagcgacctttgcaggcagcg
gaacccccacctggcgacaggtgcctctcgccgcaaaagccacgtgtataagatacacctgcaaaaggc
ggcacaacccagtgccacgttgtgagttggatagttgtgaaaagagtaaatggctctctcaagcgatt
caacaaggggctgaaggatcccagaaggtacccattgtatgggatctgatctggggcctcgggtcac
atgctttacatgtttagtcgaggttaaaaaaacgtctaggccccccgaaccacggggacgtggtttcctt
tgaaaaacacgatgataatagccacaaccMVSKGEELFTGVVPILVELDGDVNG
HKFSVSGEGEGDATYGKLTCLKFICTTGKLPVPWPTLVTTLYGVQC
FSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYKTRAEVKFE
GDTLVNRIELKGIDFKEDGNILGHKLEYNYNSHNVYIMADKQKNGI
KVNFKIRHNIEDGSVQLADHYQNTPIGDGPVLLPDNHYLSTQSAL
SKDPNEKRDHMLLEFVTAAGITLGMDELYKTGA

23

MALPVTALLLPLALLLHAARPEIVLTQSPATLSLSPGERATLSCR
ASQDISKYLWYQQKPGQAPRLLIYHTSRLHSGIPDRFSGSGSTDF
TLTISRLEPEDIAVYYCQQGNTLPYTFGQGTKLEIGGGGSGGGGSGG
GGSQVTLRESGPALVKPTQTLTLCTFSGVSLPDYGVSWIRQPPGKA
LEWLAVIWGSETTYNSALKSRLTISKDTSKNQVVLTMNMDPVD
TATYYCAKHYYGGSYAMDYWGQTTVTVSSTTPAPRPPTPAPTI
ASQPLSLRPEACRPAAGGAVHTRGLDFACDLVPVFCGLLVAKSLVLS
ALLVKRGRKLLYIFKQPFMRPVQTTQEEDGCSCRFPEEEEGGCEL
RVKFSRSADAPAYQQGQNQLYNELNLGRREEYDVLDRRGRDPE
MGGKPRRKNPQEGLYNELQKDKMAEAYSEIGMKGERRRGKGHGDG
LYQGLSTATKDTYDALHMQUALPPRATNFSLLKQAGDVEENPGPLC
YLLDGILFIYGVILTALFLNCRNTGPWLKLVLCNTPDPSKFFSOLS
SEHGGDVQKWLSSPFPSSSFSPGGLAPEISPLEVLERDKVTQLLLQQ
DKVPEPASLSSNHSLSCTFNQGYFFFHLPDALEIEACQVYFTYDPY
SEEDPDEGVAGAPTGSSPQLQPLSGEDDAYCTFPSRDDLLLFSPSL
LGGPSPSTAPGGSGAGEERMPPSLQERVPRDWDQPPLGPPTPGVP
DLVDFQPPPELVREAGEEVPDAGPREGVSPWSPRPPGQGEFRALN
ARLPLNTDAYLSLQELQGQDPHTLVATNFSLLKQAGDVEENPGPLC
YILDAILFLYGIVLTLTYCERTMPRIPTLKNLEDLVTEYHGNFSAWSG
VSKGLAESLQPDYSERLCLVSEIPPKGGALGEGPGASPCNQHSPYW
APPCYTLKPETcccctctcctccccccccctaacgttactggccgaagccgcttgaataagg
ccggtgtgcgtttgtctatatgttattttccaccatattgccgtcttttgcaatgtgagggcccggaaacctgg
ccctgtctcttgacgagcattcctaggggtctttccctctcgccaaaggaatgcaaggctgttgaatgtc
gtgaaggaagcagttcctctggaagcttctgaagacaaacaacgtctgtagcgacctttgcaggcagcg
gaacccccacctggcgacaggtgcctctcgccgcaaaagccacgtgtataagatacacctgcaaaaggc
ggcacaacccagtgccacgttgtgagttggatagttgtgaaaagagtaaatggctctctcaagcgatt
caacaaggggctgaaggatcccagaaggtacccattgtatgggatctgatctggggcctcgggtcac
atgctttacatgtttagtcgaggttaaaaaaacgtctaggccccccgaaccacggggacgtggtttcctt

Time: 2024.05.01-2024.05.03

tgaaaaacacgatgataatatgccacaaccMVSKGEELFTGVVPILVELDGDVNG
HKFSVSGEGEGDATYGKLTLLKFICTTGKLPVPWPTLVTTLTLYGVQC
FSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYKTRAEVKFE
GDTLVNRIELKGIDFKEDGNILGHKLEYNYNSHNVYIMADKQKNGI
KVNFKIRHNIEDGSVQLADHYQQNTPIGDGPVLLPDNHYLSTQSAL
SKDPNEKRDHMLLEFVTAAGITLGMDELYKTGA
