

dengue virus type 4 China Guangzhou B5 strain genomic RNA,complete cds

GenBank: AF289029.1

[FASTA Graphics](#)

[Go to:](#)

LOCUS AF289029 10665 bp RNA linear VRL 14-MAY-2001

DEFINITION dengue virus type 4 China Guangzhou B5 strain genomic
RNA,complete

cds.

ACCESSION AF289029

VERSION AF289029.1

KEYWORDS .

SOURCE Dengue virus type 4

ORGANISM [Dengue virus type 4](#)

Viruses; Riboviria; Orthornavirae; Kitrinoviricota;

Flasuviricetes;

Amarillovirales; Flaviviridae; Flavivirus.

REFERENCE 1 (bases 1 to 10665)

AUTHORS Wang,P., Qin,E., Yu,M., Geng,L., Zhao,W., Hu,Z., Yuan,Z. and
Yang,P.

TITLE Determination and analysis of the complete genomic sequence of the
dengue type 4 virus B5 strain isolated in China

JOURNAL J. Biochem. Mol. Biol. 17 (2), 148-154 (2001)

REFERENCE 2 (bases 1 to 10665)

AUTHORS Wang,P., Geng,L., Qin,E., Yu,M. and Zhao,W.

TITLE Direct Submission

JOURNAL Submitted (23-JUL-2000) Virology Department, Microbiology and
Epidemiology Institute, Taiping Road 27, Beijing, Beijing 100850,
China

FEATURES Location/Qualifiers

source 1..10665
/organism="Dengue virus type 4"
/mol_type="genomic RNA"
/strain="B5"
/db_xref="taxon:[11070](#)"
/country="China: Guangzhou"

[CDS](#) 102..10265
/codon_start=1
/product="polyprotein precursor"
/protein_id="[AAG30148.1](#)"
/translation="MNQRKRVVRPPFNMLKRERNRVSTPQGLVKRFSTGLFSGKGPLR
MVLAFITFLRVLSIPPTAGILKRWGQLKKNKAIKILTGRKEIGRMLNINLNGRKRSTM
TLLCLIPTVMAFHLSTRDGEPLMIVGKHERGRPLLFKTTEGINKCTLIAMDLMGEMCED
TVTYKCPLLVNTEPEDIDCWCNLTSAWVMYGTCTQSGERRREKRSVALTPHSGMGLET
RAETWMSSEGAWKHAQRVESWVLRNPGFALLAGFMAYMIGQTGIQRAVFFVLMMLVAP

SYGMRCVGVGNRDFVEGVSGGAWVDLVLEHGGCVTTMAQGKPTLDFELIKTTAKEVAL
LRTYCI EASISNITTATRCPTQGE PYLKEEQDQQYICRRDVVDRGWNGCGLFGKGGV
VTCAKFSCSGKITGNLVQIENLEYTVVTVHNGDTHAVGNDTSNHGVTATITPRSPSV
EVKLPDYGELTLDCEPRSGIDFNEMILMKMKKKTWL VHKKQWFLDLPLPWAAGADTSEV
HWNKYKERMVTFKVP HAKRQDVTVLGSQEGAMHSALTGATEVDSGDGNHMFAGHLKCKV
RMEKLRIKGMSYTMCSGKFSIDKEMAETQHGT TVIKVKYEGAGAPCKVPIEIRDVNKE
KVVGRVISSTPFAENTNSVTNIELEPPFGDSYIIIGV GDSALTLHWFRKGSSIGKMFE
STYRGAKRMAILGETAWDFGSVGGLTSLGKAVHQVFGSVYTTMFGGVSWMVRI LIGF
LVLWIGTNSRNTSMAMTCIAVGGITLFLGFTVQADTGCAVSWSGKELKCGSGIFVIDN
VHTWTEQHKFQPE SPARLASAILNAHKDGVCGIRSTTRLENIMWKQITNELNYVLWEG
GHDLTVVAGDVKGVL SKGKRALAPPVNDLKYSWKTWGKAKIFT PETKNSTFLIDGPD
SECPNERRAWNFLEVEDYGF GFMFTTNIWMKFREGSSEVCDHRLMSAAIKDQKAVHAD
MYWIESSKNQ TWQIERASLIEVKTC LWPKTHTLWSNGVLESQMLIPKAYAGPFSQHN
RQGYATQTVGPWHLGKLEIDFGECPGTTVTVQEDCDHRGPSLR TTTASGKLV TQWCCR
SCTMPPLRFLGEDGCWY GMEIRPLSEKEENMVKSQVSAGQGPETFSMGLLCLTLFVE
ECLRRRVTRKHMILVVVATLC AII LGGLTWMDDL RALIMLGDTMSGRMGGQIHLAIMT
MFKMSPGYVLGIFLRRLTSRETALMVIGMAMTTVFSIPRDLMEFIDGLSLGLILLKMV
THFDNTQVGT LALS LTFIRSTMPLVMAWRTIMAVLFVVT LIPLCRTSCLQNQSHWEI
TALILGAQALPVYLM TLMKGASKRSWPLNEGIMAVGLVSL LGSALLKNDVPLAGPMVA
GGLLLAAYVMMSGSAADLSLEKAA NVQWDEMADITGSSPIIEVKQDEDSFSIRDIEET
NMITLLVKLALITVSGLYPLAIPVTMALWYMWQVK TQRSGALWDVPSAAAQKATLTE
GVYRIMQRGLFGKTQVGVGIHMEGVFHTMWHVTRGSVICHETGRLEPSWADV RNDMIS
YGGGWRLGDKWDKEEDVQVLAIEPGKNPKHVQTKPGLFKTLTGEIGAVTLDFKPGTSG
SPIINRKGKVIGLYGNGVVTKSGDYVSAITQAERTGEPDYEVEDEDIFRKKRLTIMDLH
PGAGKTKRILPSIVREALKRRLRTLILAPTRVVAEME EALRGLPIRYQTPAVKSEHT
GREIVDLMCHATFTTRLLSSTRVPNYNLIVMDEAHFTDPSSVAARGYISTRVEMGEAA
AIFMTATPPGATDPFPQSN SPIEDIEREIPERSWNTGFDWITDYQKTVWFVPSIKAG
NDIANCLRKSGKKVIQLSRKTFDTEYPKTKLTDWDFVVT DISEMGANFRAGRVIDPR
RCLKPVILTDGPERVILAGPIPVTPASAAQRRGRIGRNPTQEDDQYVFSGDPLKND
HAHWTEAKMLLDNIYTPEGI IPTLFGPEREKSQAIDGEFRLRGEQRKTFVELMRGDL
PVWLSYKVASAGISYKDREWCFTGERNNQILEENMEVEIWTREGEKKLRPKWLDARV
YADPMALKDFKEFASGRKSITLDILTEIASLPTYLSSRAKLALDNIVMLHTTERGGKA
YQHALNELPESLETLM LVALLGAMTAGIFLFFMQKGIGKLSMGLIAIAVASGLLWVA
EIQPQWIAASII LEFFLMVLLIPEPEKQRT PQDNQLIYVILTILTIIGLIAANEMGLI
EKTKTDFGFYQVKTEITILDVDLRPASAWTLYAVATTILTPMLRHTIENTS ANLSLAA
IANHAAVLMGLGKGWPLHRMDLGVP LLAMGCYSQVNPTTLTASLVMLLVHYAII GPGL
QAKATREAQKR TAAGIMKNPTVDGITVIDLEPISYDPKFEKQLGQVMLLVLCAGQLLL
MRTTWAFCEVLT LATGPVLT LWEGNPGRFWNTTIAVSTANIFRGSYLAGAGLAFSLIK
NAQT PRRGTGTTGETLGEKWKRLNSLDRKEFE EYKRS GILEVDRTEAKSALKDGSKI
KHAVSRGSSKIRWIVERGMVKPKGKVVDLGCGRGGSYMATLKNVTEVKGYTKGGPG
HEEIPMATYGNLVLKLSGVDV FYPTEQVDTLLCDIGESSNPTIEEGRTLRLV LKM
VEPWLSKPEFCIKVLNPYMP TVIEELEKLQRKYGGS LVRCP LSRNSTHEMYWVSGVS
GNIVSSVNTTSKMLLNRF TTRHRKPTYEKD VDLGAGTRSVSTETEPDMTII GRRLQR
LQEEHKETWHYDQENPYRTWAYHGSYEAPSTGSASSMVNGVVKLLTKPWDV I PMVTQL

AMTDTTPFGQQRVFKEKVDTRTPQPKPGTRMVMTTTANWLWALLGKKKKPRLCTREEF
ISKVRSNAAIGAVFQEEQGWTSASEAVNDSRFWELVDKERTLHQEGKCESCVYNMMGK
REKKLGEFGRAKGSRAIWMLGARFLEFEALGFLNEDHWFGRENSWSGVEGEGLHRL
GYILEDIDKKDGDLIYADDTAGWDTRITEDDLLNEELITEQMAPHHKILAKAIFKLT
QNKVVVVLRLPTPKGAVMDIISRKDQRGSGQVGTYGLNTFTNMEVQLIRQMEAEGVITQ
DDMHNPKGLKERVEKWLKECGVDRLKRMAISGDDCVVKPLDERFSTSLFLNDMGKVR
KDIPQWEPSKGWKNWQEVFPCSHHFHKIFMKDGRSLVPCRNQDELIGRARISQGAGW
SLRETACL GKAYAQMWSLMYFHRDLRLASMAICSAVPTWFPSTRTWSIHAHQWM
TTEDMLKVWNRVWIEDNPNMTDKTPVHSWEDI PYLGKREDLWCGSLIGLSSRATWAKN
IHTAITQVRNLIGKEEYVDYMPVMKRYSAFFESEGL"

ORIGIN

1 agttgttagt ctgtgtggac cgacaaggac agttctaaat cggaagcttg cttaacgcag
61 ttctaacagt ttgttttagat agagagcaga tctctggaat aatgaaccaa cgaaaaaggg
121 tggtagtagc acctttcaat atgctgaaac gcgagagaaa ccgcgtatca acccctcaag
181 ggtaggtgaa gagattctca accggacttt tttccggaat aggaccctta cggatggtgt
241 tagcattcat cacgttcttg cgagtccttt ccatcccacc aacagcaggg attctgaaaa
301 gatggggaca gttgaagaaa aacaaggcca tcaaaatact gactggattc aggaaggaga
361 taggccgcat gctgaacatc ttgaatggaa ggaaaaggtc aacaatgaca ttgctgtgct
421 tgattcccac cgtaatggcg tttcacttgt caacaagaga tggcgaaccc ctcatgatat
481 tgggaaaaca cgaaaggggg agacctctct tgtttaagac aacagaggga atcaacaat
541 gcactcttat tgccatggac ctgggtgaaa tgtgtgagga caccgtcacg tacaatgcc
601 ccctactggt caataccgaa cctgaggaca ttgactgctg gtgcaatctc acgtctgcct
661 gggtagcatg tggaacatgt actcagagtg gggaacggag acgggagaag cgctcagtag
721 ccctaaccac acattcagga atgggatttg agacaagggc tgagacatgg atgtcatcgg
781 aaggggcttg gaaacatgct cagagggtag agagttgggt actcaggaac ccaggattcg
841 ctctcttggc aggatttatg gcctatatga ttgggcagac aggaatccaa cgagcagtct
901 tctttgttct aatgatgctg gtcgctccat cctacggaat gcgatgcgtg ggagtgggga
961 acagagactt tgtggaagga gtctcagggt gagcatgggt cgatttagtg ctagaacatg
1021 gaggatgtgt cacaaccatg gccagggaa aaccaacctt ggattttgaa ctgatcaaga
1081 caacagccaa ggaagtggct ctgttaagaa cctattgcat tgaagcctcg atatcaaaca
1141 taaccacggc aacaagatgc ccaacgcaag gagaacctta tctcaaagag gaacaagatc
1201 aacagtacat ctgccggaga gatgtggtag acagagggtg gggcaatggc tgtggcttgt
1261 ttgggaaagg aggagttgtg acatgtgcga agttctcatg ctcgggaaag ataacaggca
1321 atttggtcca aattgagaac cttgaataga cagtggttgt aacagtccac aatggagaca
1381 cccatgcagt aggaaatgat acatccaacc atggagttac agccacgata acccccaggt
1441 caccatcggg agaagttaaa ttaccggatt atggagaatt gacacttgat tgtgaacca
1501 ggtccggaat tgacttcaat gagatgattc tgatgaaaat gaaaaagaaa acgtggcttg
1561 tgcacaagca atgggttttg gatctacctc taccatgggc agcaggagca gatacatcag
1621 aagttcattg gaattacaaa gagagaatgg taacattcaa ggttcctcat gccagagac
1681 aggatgtgac agtgctagga tctcaggaag gagccatgca ttctgccctc accggagcta
1741 cagaagtgga ttccggtgat ggaaaccaca tgtttgcagg acatctgaaa tgcaaagtgc
1801 gcatggagaa attgagaatt aagggaatgt catacacgat gtgctcagga aagttctcaa
1861 ttgacaaaga gatggcagaa acacagcatg ggacaacagt gattaaagtc aaatatgaag
1921 gtgctggagc tccgtgtaaa gttcccatag agataagaga tgtgaacaag gaaaaagtgg

1981 tagggcgtgt catctcatct accccttttg ctgagaatac caacagtgt accaacatag
2041 agttggaacc cccttttggg gacagctaca taataatagg tgttgagagac agtgcattaa
2101 cactccattg gttcaggaaa gggagttcca ttggcaagat gtttgagtcc acatacagag
2161 gtgcaaagcg aatggccatt ctaggtgaaa cagcctggga ttttggttct gttggtggat
2221 tgctcacatc attgggaaa gctgtacacc aggttttttg tagtgtgtat acaactatgt
2281 ttggaggagt ctcatggatg gttagaatcc taattgggtt cctagtgttg tggattggca
2341 cgaattcgag aaacacctca atggcaatga cgtgcatagc tgttgaggga atcactctgt
2401 ttctaggttt cacagttcaa gcagacacgg gttgtgcggt gtcattggagt ggaaaagaat
2461 tgaaatgtgg aagcggaatc tttgtaattg acaatgtgca cacttggaaca gagcagcaca
2521 aatttcaacc agagtctcca gcgagactag cgtctgcaat attgaatgcc cacaaagacg
2581 gggctctgtg aattagatca accacgaggc tggaaaacat catgtggaag caaataacca
2641 acgagttgaa ctatgttctt tgggaaggag gacatgacct cactgtagtg gccggggatg
2701 tgaaaggggt gctgtccaaa ggcaagagag cacttgcacc ccagtgaaat gatctgaaat
2761 attcatggaa gacatgggga aaagcaaaaa tctttactcc agaaacaaaa aatagcacat
2821 ttctaataga cggaccagac acctccgaat gcccacatga acggagagca tggaaatttc
2881 tcgaggtaga agactatgga tttggcatgt tcacgaccaa catatggatg aaatttcgag
2941 aaggaagttc agaagtgtgt gaccacaggt tgatgtcggc ggcaatcaag gaccagaaag
3001 ctgtgcatgc tgatatggga tattggatag agagctcaaa aaaccagacc tggcagatag
3061 agagagcatc tctcattgaa gtgaaaacat gtctatggcc caagaccac acattgtgga
3121 gcaatggagt gctagagagc cagatgctca ttccaaaagc atatgcaggc ctttttcac
3181 agcacaatta ccgccagggc tatgccacgc agaccgtggg cccatggcac ttgggcaaac
3241 tagaaataga ctttggagaa tgccccgaa caacagtcac tgtccaggag gattgtgacc
3301 atagaggccc atctttgagg accaccactg catctggaaa attggtcacg cagtgggtgt
3361 gccgctcctg cacgatgccc cccttaaggt ttttgggaga ggatggatgc tggatggga
3421 tggaaatcag acccttgagt gaaaaagaag agaacatggt caaatcacag gtatcggccg
3481 gtcagggtac accagaaact ttttctatgg ggctgttatg cctgactttg tttgtggaag
3541 aatgcttgag gagaagagtc accagaaac acatgatatt gggtgtggtg gccacccttt
3601 gtgccatcat cctaggaggc ctcacatgga tggacttact acgagccctc atcatgttag
3661 gggacaccat gtctggtaga atgggaggtc agattcactt agccatcatg acaatgttca
3721 agatgtcacc aggatactg ttgggtatat ttttaaggag actcacttca agagagacag
3781 cactaatggt gataggaatg gccatgacaa cagtgttttc aattccacgt gaccttatgg
3841 aattcattga tggactatca ctggggttaa tcttgttaaa aatggtaaca cattttgaca
3901 acactcaagt gggaacctta gctctttctt tgactttcat aagatcaaca atgccattgg
3961 tcatggcttg gaggaccata atggctgtgt tatttgtggt cacactcatt cttttatgca
4021 ggacaagctg tctccaaaac cagtcacatt gggtagaaat aacagcactc atcctgggag
4081 ccaggtctc gccagtgtac ctaatgactc tcatgaaagg agcctcaaaa agatcctggc
4141 cccttaacga ggggtataatg gctgtgggtc tggtcagtct cttgggaagc gccctcctaa
4201 agaatgatgt cccttggtg ggcccaatgg tggcaggagg ctacttctg gcagcctatg
4261 tgatgagtgg tagtgcagca gacctgtcac tagagaaggc cgccaatgtg cagtgggatg
4321 agatggcaga cataacaggc tcaagcccaa tcatagaagt gaagcaggat gaagatggct
4381 ctttctccat acgggacatc gaggaaacca atatgataac cctcttggtg aaactggcac
4441 tgataacagt gtcaggcttc tacccttggt caattccagt cacaatggcc ctatggtaca
4501 tgtggcagggt gaaaacacaa agatcaggag ccttggtggga cgtcccctca cctgctgccg
4561 ctcagaaagc cacactgact gaaggagtgt accggatcat gcagagaggg ttgtttggga

4621 aaactcaggt tggagtaggg atacacatgg aagggtgtgtt tcacacaatg tggcatgtaa
4681 caagaggatc agtgatctgc catgagactg ggagactgga gccatcttgg gctgatgtca
4741 ggaacgacat gatatacatc ggtgggggat ggaggctcgg agacaaatgg gacaaagaag
4801 aagatgttca ggttctagct atagaaccag gaaaaaaccc gaagcacgtc caaacgaagc
4861 ccggtctttt caaaacccta actggagaaa ttggagcagt gacattggat tttaaacctg
4921 gaacgtctgg ttctcccatc attaacagga aaggaaaagt catcggactc tacggaaatg
4981 gagtggtcac taaatcaggt gattacgtta gtgccataac gcaagccgaa agaactgggtg
5041 agccagatta tgaagtggat gaggacattt ttcgaaagaa aagactaact ataatggacc
5101 tacaccccgg agccggaaaag acaaaaagaa ttctcccatc aatagtcaga gaagccttaa
5161 aaaggaggct gcggaccttg attttggctc ccacgagagt ggtggcggcc gagatggaag
5221 aggccttacg tggactgcca atccgttatc agactccagc tgtgaaatca gagcacacag
5281 gaagagagat cgtggacctc atgtgtcatg caaccttcac aacaagactt ttatcatcaa
5341 ccagggttcc aaattacaac ctcatagtga tggatgaagc acatttcaca gaccttcta
5401 gtgtcgcggc tagaggatac atctcaacca ggttggaat gggagaggca gcagccatct
5461 ttatgactgc gactcctcct ggagccacag atccctttcc ccagagcaac agcccaatag
5521 aagacatcga gagagaaatt ccagaaaggt catggaacac agggttcgac tggataaccg
5581 actaccaagg gaaaactgtg tggtttgttc ccagcataaa agctggcaat gatattgcaa
5641 actgcttgag aaagtcggga aagaaggatga tccaattgag tagaaaaacc tttgacacag
5701 agtatccaaa aacgaaactc acagactggg attttgttgt taccacagac atatcagaaa
5761 tgggggccaa ttttagagct gggagagtga tagacccag gagatgtctc aagccagtta
5821 ttttaactga cgggccagag agagttatct tggcaggtcc cattccagtg actccagcaa
5881 gcgctgctca gagaagagg cgaataggtta ggaaccctac acaagaagat gaccaatatg
5941 tcttctccgg agaccacta aaaaatgacg aagatcatgc cactggaca gaagcaaaga
6001 tgctgcttga taatatctac accccagaag ggatcattcc aacattgttt ggtccggaaa
6061 gagaaaaaag tcaagccatt gatggagagt tccgcctcag aggggaacaa aggaagactt
6121 ttgtagaatt aatgaggaga ggagacctcc cgggtgtggct gagctataag gtagcttctg
6181 ctggtatctc ttacaaagac cgggaatggt gcttcacag ggaaaggaat aaccaaattc
6241 tagaagaaaa catggaggtt gaaatttggc ctagagaggg agagaagaaa aaactcaggc
6301 caaaatggtt agatgcgcgt gtttacgctg accccatggc tttgaaggat ttcaaggagt
6361 ttgccagtgg aagaaagagc ataaccctcg acatcctaac agagattgcc agtttgccaa
6421 ottacctttt ttctagagct aagctcgccc ttgacaacat agtcatgtct cacacaacag
6481 aaagaggagg gaaggcctac caacatgcct tgaacgaact cccggagtca ctagaaacac
6541 tcatgcttgt agctctactg ggtgctatga cagcaggcat cttcttgttt ttcatgcaag
6601 ggaaaggaat agggaaactg tcaatgggtt tgatagccat tgcggtagct agcggcttgc
6661 tctgggtagc agaaatccag cccagtgga tagcggcttc aatcatacta gagttctttc
6721 tcatggtgtt gttgatacca gaaccagaaa aacaaaggac ccacaagac aatcaattga
6781 tctacgtcat attgaccatt ctaccatca ttggtctcat agcagccaac gagatgggac
6841 tgattgaaaa aacaaaaacg gatthttgggt tttaccaggt gaaaacagaa atcaccatcc
6901 ttgatgtgga tttgagacca gcctcagcgt ggacgctcta tgcagtagcc accactattc
6961 tgactcccat gctgagacac accatagaaa acacgtctgc aaacctatct ctagcggcca
7021 ttgctaacca tgcagctgtc ctaatggggc ttggaaaagg atggccgctc cacaggatgg
7081 acctcggcgt gccgctgttg gcaatgggat gctattctca agtgaacca acgaccttga
7141 cagcatcctt agtcatgctt ttagtccatt acgcaataat aggtccagga ctgcaggcaa
7201 aagccacaag agaggctcag aaaagaacag cagctgggat catgaagaac cccaccgtgg

7261 acgggataac agtaatagat ctagaaccaa tatcctatga cccaaagttt gaaaagcaat
7321 tggggcaagt catgctacta gtcttgtgtg ctggacagct actcttgatg agaacaacat
7381 gggctttctg tgaagtcttg actttggcca caggaccagt cctgaccctg tgggagggta
7441 acccggaag gttttggaac acgactatag ccgtgtccac tgccaacatt ttcagaggaa
7501 gctacttggc gggagctgga ctggcctttt cgcttataaa gaatgcacaa acccccagga
7561 gaggaactgg taccacagga gagacactgg gagaaaagtg gaagagacag ctaaactcac
7621 tagataggaa ggagtttgaa gagtacaaaa gaagtggcat actagaagtg gacaggactg
7681 aagctaagtc tgccttgaaa gatggatcta aaatcaagca cgcagtatct agagggtcca
7741 gtaagattag atggattgtt gaaagaggga tggtaaaacc aaaaggaaaa gttgtggatc
7801 ttggttgcgg gagaggagga tggctgtatt acatggcaac actcaagaac gtaaccgaag
7861 tgaaagggta caaaaagga ggtccaggac atgaagaacc gattcccatg gctacctatg
7921 gctggaactt ggtcaaaactc cattcagggg ttgatgtgtt ctacaaacc actgagcaag
7981 tggataccct gctctgtgat attggggagt catcttccaa tccgacgata gaggaaggaa
8041 gaacattaag agttttgaag atgggtggaac catggctctc ttcaaagcct gaattttgca
8101 tcaaagtcct taatccctat atgccaacag tcatagaaga gctagagaaa ctgcagagaa
8161 aatatggtg aagtcttgtc agatgcccgat tatctaggaa ttccactcat gagatgtatt
8221 ggggtgtcagg tgtgtcggga aacatcgtga gctctgtaaa cacaacatca aaaatgttgt
8281 tgaacagatt tacaacaagg catagaaaac ccacttatga gaaggacgta gaccttggag
8341 caggaacgag aagtgtctcc actgaaacag aaaaaccgga catgacaatc atcgggagaa
8401 ggctccagcg actgcaagaa gagcaciaaag aaacctggca ctatgatcag gaaaacccat
8461 acagaacctg ggcgtatcat ggaagctatg aagctccctc gacaggctca gcatcctcca
8521 tgggtgaacgg ggtggtaaaa ttgctgacaa aacctggga cgtgattcca atggtgacct
8581 agttggctat gacagacaca accccttttg ggcaacagag agtgtttaaa gagaaggtg
8641 acaccagaac accacaacca aagcctggca cacgaatggt catgaccacg acagccaatt
8701 ggctgtgggc tctcctcggg aagaagaaaa aaccagact gtgtacaagg gaagagttca
8761 tctcaaaagt taggtcaaat gcagccatag gcgcagtctt tcaggaagaa cagggatgga
8821 catcagccag tgaagctgtg aatgacagcc gattttggga actggttgac aaagaaagga
8881 ctctgcacca ggaagggaaa tgtgaatcgt gtgtctacaa catgatggga aaacgtgaga
8941 aaaagttagg agagtttggt agagccaagg gaagccgagc aatctggtac atgtggctag
9001 gagcgcggtt tctggaattt gaagccctgg gttttttgaa tgaagatcat tggtttgga
9061 gagaaaactc atggagtgga gtggaagggg aaggcctgca cagattggga tatatcctgg
9121 aggacattga caagaaggat ggagacctga tatatgctga tgatacagct ggttgggaca
9181 caagaatcac tgaagatgac cttctaaatg aagaactgat cacggaacag atggccccctc
9241 accataagat cctagccaaa gctatttttca aactaactta tcaaaacaaa gtggtgaaag
9301 tctcagacc cacaccgaaa ggagcgggtg tggacataat atccaggaaa gaccaaagag
9361 gtagtggaca ggtcgggaaca tatggtttga acacattcac taacatggaa gtacaactca
9421 tccgccaaat ggaagctgaa ggagtcacat cacaagatga catgcacaac caaaagggt
9481 tgaaagaaag agttgagaaa tggctgaaag agtggtgtgt cgataggttg aaaaggatgg
9541 caatcagtgg agacgattgt gtggtgaagc ctctggatga aaggttcagc acttctctcc
9601 tctttttgaa cgacatggga aagggtgagga aagacattcc gcagtgggaa ccatctaagg
9661 gatggaaaaa ctggcaagag gtcccttttt gctcccacca ctttcacaag atcttcatga
9721 aggatggccg ctactcgtg gttccatgta gaaaccagga tgaactgata gggagagcca
9781 gaatctcgca aggggctgga tggagtttaa gagaaacagc ttgcctgggc aaagcttacg
9841 cccagatgtg gtcactcatg tactttcaca gaagggacct gcgttttagc tccatggcga

9901 tatgctcagc agttccaaca gaatggtttc caacaagcag aacaacatgg tcaatccacg
9961 cccatcatca gtggatgact actgaagata tgctcaaagt gtggaacaga gtgtggatag
10021 aagacaaccc caatatgact gacaagactc cagttcattc gtgggaagac ataccttacc
10081 taggaaaaag agaagacttg tgggtgtggat ccttgattgg actttcctcc agggccacct
10141 gggcgaagaa catacacaca gccataaccc aggtcaggaa cctgatcgga aaagaggagt
10201 atgtggatta catgccagtc atgaaaagat acagcgctcc cttcgagagt gaaggagttc
10261 tgtaattacc aacaacaaac accaaagtaa aaattttttg aggctattga agtcaggcca
10321 cttgtgccac ggcttgagca aaccgtgctg cctgtagctc cgccaataac gggaggcggt
10381 aaattcccag ggaggccatg cgccacggaa gctgtgctcg tggcatattg gactagcggg
10441 tagaggagac ccctcccatc accaacaaaa cgcagcaaaa aagggggccc gaagccagga
10501 ggaagctgta ctctggtgg aaggactaga ggtagagga gacccccca acacaaaaac
10561 agcatattga cgctgggaaa gaccagagat cctgctgtct ctacaacatc aatccaggca
10621 cagagcgccg cgagatggat tgggtgtgtt gatccaacag gttct

//