

Amino acid sequences of final proteins

>tr|Q9Z8C4|Q9Z8C4_CHLPN Penicillin-binding protein OS=Chlamydia pneumoniae OX=83558
GN=pbp3 PE=4 SV=1

MSYRKRSTLIVLGVFALYALLVLRYYKIQICEGDHWAAEALGQHEFCVRDPFRRGTFFAN
TTVRKGDKDLQQPFAVDITKFHLCADPLAIPFCHRDDEIIQGILQFIEGQTYDDLSLKLDK
KSRYCKLYPLLDVSVHDRLSLWWKGYATKHRLPTNALFFITDYQRSYPFGKLLGQVLHTL
REIKDEKTGKAFPTGGMEAYFNHILEGDVGERKLLRSPLNRLDTNRVIKLPKDGSDIYLT
INPVIQTIAEEELERGVLEAKAQGGRLILMNSQTGEILALAQYFFDPTNYKEYFNKER
IEHTKVSFVSDVFEPGSGIMKPLTVAIALQANEEASLKSQKKIFDPEEPIDVTRTLFPGRK
GSPLKDISRNSQLNMYMAIQSSNVYVAQLADRIIQSLGVAWYQQKLLALGFGRKTGIEL
PSEASGLVPSPHRFHINGSLEWSLSTPYSLAMGYNILATGIQMVQAYAILANGGYAVRPT
LVKKIVSASGEYHLPTKEKTRLFSEEITREVVVRAMRFTTLPGSGGFRASPKHHSSAGKT
GTTEKMIHGKYDKRRHIASFIFGTPVESSEGNFPPLVMLVSIDDPEYGLRADGTKNYMGG
RCAAPIFSRVADRTLLYLGLIPDKKLRNCDEEAAAALKRLYEENRSPKQGGTR

>tr|Q9Z8X6|Q9Z8X6_CHLPN Probable ATP-dependent 6-phosphofructokinase OS=Chlamydia
pneumoniae OX=83558 GN=pfkA_2 PE=3 SV=1

MHPLYVDLDTIISYSPPLPKEFQEAASLIAPDTSKSPVVPVGVKTLFPQTYHLPYLKF
VQGENVVHTPLKVGVMFSGGPAPGGHNVIQGLFNSLKDFHPDSSLVGVFNNGDGLTNNKS
IDITEEFLSKFRNSGGFNCIGTGRKKIVTPEAKEACLKTAEALDLDGLVIIGDGSNTAT
AILAEYFAKRRPKTSIVGVPKTIDGDLQHTFLDLTFGFDATATKFYSSIIISNRDALSCK
AHYHFIKLMGRSASHIALECALQTHPNIALIGEEIAEKNLPLKTIHKKICSVIADRAAME
KYYGVILIPEGIIEFIPEIINLITEIESLSEYEDKISRLSPESQRLKSFAPPIEQILN
DRDAHGNVYVSKISVDKLLIHLVSNHLQQYFPNVPFNAISHFLGYEGRSGLPTKFDNTYG
YSLGYGAGILVRNHCNGYLSTIESLACPFMKWKLRAIPVVKMFTVKQQADGTLQPKIKKY
LVDIGSTAFRKFKLYRKIWALEDSEYRFLGPLQIETPPMEMHSDNFPPLTLLLNHNFWQRHQ
GCIEIPDTTY

>sp|Q9Z7Y2|MURA_CHLPN UDP-N-acetylglucosamine 1-carboxyvinyltransferase OS=Chlamydia
pneumoniae OX=83558 GN=murA PE=3 SV=1

MQIAQVFGCGRLNGEVKVSAGAKNAATKLLVASLLSDQKCTLRNVPDIGDVSLTVELCKSL
GAHVSWDKETEVLEIYTPETIQCTRVPTFSNVNRIPILLGALLGRCPEGVYVPTVGGDA
IGERTLNFHFEGKQLGVQISSDSSGYAKAPRGLKGNYIHLPPPSVGATENLILAAIHA
KGRTVIKNVALEAELDVLFLQKAGADITDNDRTIDIFGTGGLGSVDHTILPDKIEAA
SFGMAAVVSGGRVFRNAKQELLIPFLKMLRSIGGGFLVSESGIEFFQERPLVGGVVLET
DVHPGFLTDWQQPFAVLLSQAQGSSVIHETVHENRLGYLHGLQHMGAECLFHQCLSTKA
CRYAIGNFPHSAVIHGATPLWASHLVIPDLRAGFAYVMAALIAEGGGSIIENTHLLDRGY
TNWVGKLRSLGAKIQIFDMEQEELTTSPKSLALRDASL

>tr|Q9Z7N2|Q9Z7N2_CHLPN D-Ala-D-Ala Carboxypeptidase OS=Chlamydia pneumoniae OX=83558
GN=dacF PE=4 SV=1

MKRPFPTYLCIIFYGSCASLSLHAGLSFPEVRGATAAVVHADSGKVFYDKDIDAVIYPAS
MTKIATATFILKHYPTVLDTLIKVKQDAIASITPQAKKQSGYRSPPHWLETGSGTIQLHL
REELLGWDLFHALLVCSANDAANVLAMACCGSVEKFMDKLNFFLKEEIGCTHTHFNNPHG
LHHPNHYTTTRDLISIMRCALKEPPFRGVISTTSYKIGATNLHGERILSPTNKLLLPGST
YHYPPALGGKTGTTKTAGKNLIMAAEKNRLLVTIATGYSGPVSVDLYQDVIALCETVFNE
PLLRKELVPPSDCLQLEIANLGKLSCLPEGLYYDFYASEDREPLSVSFIAHADAFPIEQ

GDLLGHVWFYDDEGKKISSQPFYAPCRFERTIKPWKLYMKRVFTSYRTYMSITMLLMYFR
IRKHKRYKNLKHYSKI

>tr|Q9Z744|Q9Z744_CHLPN Nifs protein, putative OS=Chlamydia pneumoniae OX=83558
GN=yfhO_2 PE=4 SV=1

MEKPQNRKAPRIFWLNNQVAIPPSERVKESYALHSDIFSLPPGSALKLAEKTEESIRQLV
GLKDSHIFRFVPHFPHVHVHIVLAALVENLSMFQGRNHIILPAHDQQLINSLCRHQGLGT
TYDWVTVNHEGRIVEEQLIETLSPRSLLFSLSAAHGLTGVIQPLDPLLSLCKDRRILLHL
DISDILGRAPLTPEILNADIITFSSAALGGMGSIGGIFIRKSLERVFSSWFPHTSASLC
FSAVAAMQTACEERISALPLFTFHTSNLCKKLIQELQSVLPSIQLAFSEVQNRLPNIVVA
AIPDIPAESLAFHLHQGGIYPSLGYERFQPLAQVLQNCGISPFLCHSALHFSALTERSKDL
EFSKLARAMHDAIKHLTPLLGSSS

>sp|Q9Z8P0|FABH_CHLPN 3-oxoacyl-[acyl-carrier-protein] synthase 3 OS=Chlamydia
pneumoniae OX=83558 GN=fabH PE=3 SV=1

MWFSVNKNKKAIIWATGSYLPEKVLSNADLEKMVDTSDEWIVTRTGIKERRIAGPQEYTS
LMGAIAAEKAIANAGLSKDQIDCIIIFSTAAPDYIFPSSGALAQAHLGIEDVPTFDCQAAC
TGYLYGLSVAKAYVESGTYNHVLLIAADKLSSFVDYTDNRNCTVLFQDGGAACVIGESRPG
SLEINRLSLGADGKLGELLSLPAGGSRCPASKETLQSGKHFIAMEGKEVFKHAVRRMETA
AKHSIALAGIQEEDIDWFVPHQANERIIDALAKRFEIDESRVFKSVHKYGNTAASSVGIA
LDELVHTESIKLDDYLLLVAFGGGLSWGAVVLKQV

>sp|Q9Z7G1|HEM2_CHLPN Delta-aminolevulinic acid dehydratase OS=Chlamydia pneumoniae
OX=83558 GN=hemB PE=3 SV=1

MSSLTLSRRPRNRKTAAIRDLAETHLSPKDLIAPFFVKYGNNIKEEIPSLPGVFRWSL
DLLLKEIERLCTYGLRAVMLFPIIPDDLKDAYGSYSSNPKNILCHSIHEIKNAFPHLCLI
SDIALDPYTTHGHGDGIFLNGEVLNDESVRIFGNIATLHAEMGADIVAPSDMMDGRIGYIR
SKLDQSGYSKTSIMSYSVKYASCLYSPFRDALSSHVTSGDKKQYQMNPKNVLEALLESSL
DEEEGADILMVKPAGLYLDVIYRIRQNTCLPLAAYQVSGEYAMILSAFQQGWLDKETLFH
ESLIAIKRAGADMIISYSAPFILELLHQGFEE

>tr|Q9Z9C3|Q9Z9C3_CHLPN Acetyl-coenzyme A carboxylase carboxyl transferase subunit beta
OS=Chlamydia pneumoniae OX=83558 GN=accD PE=3 SV=1

MRLFSYDKPKIKVQKIKADGFSGLKCNHCHEMIHANELGQYNCCPKCSYHYRITAIER
VKLLADKDSWRPLYTDLKSQDPLEFIDTDTYANRLEKARKNTTESEGVIVGICTIGLHPV
ALAVMDFNFMAGSMGAVVGEKLTRLIEEAIETRLVPVIVSASGGARMQESVFSLMQMVKT
SAALAKLHEAGLPYISVLTNPTSGGVITASFAALGDIIIAEPKALICFAGPRVVAQVIGED
LPEGAQKSEFLLEHGMIDKIVERKELKTTLQTLDDYFLAQEYTGKSKAPRDL SKRLKEI
FLLTDDSE

>tr|Q9Z7T6|Q9Z7T6_CHLPN Lipoate--protein ligase A OS=Chlamydia pneumoniae OX=83558
GN=lplA_2 PE=4 SV=1

MPTTNCIFLDLRGHSILHQLQIEEALLRVANQNFCIINSGAKDSIVLGISRNLNQDVHIS
RAQADHIPIIRRYSGGGTVFIDSNTLMVSWIMNSSEASAQPQELLAWTYGIYSPLLPNTF
SIRENDYVLGHKKIGGNAQYIQRHRVHHTTFLWDIDLDKLSYYLPIPQQQPTYRNQRSH
EEFLTTLRPWFPSRDDFLERIKASGSLFTWEEFLDNELEEILAQPHRKATTVLN

>sp|Q9Z7H2|RS4_CHLPN 30S ribosomal protein S4 OS=Chlamydia pneumoniae OX=83558 GN=rpsD
PE=3 SV=1

MARYCGPKNRVARRFGANIFGRSRNPLLKKPHPPGQHGMQRKKKSDYGLQLEEKQKCLKAC
YGMIMEKQLVKAFKEVIHKQGNVAQMFLERFECRLDNMVYRMGFAKTIFAAQQLVAHGHI
LVNGRRVDRRSFFLRPGMQISLKEKSKRLQSVKDALESKDESSLPSYISLDKTGFKGELL
VSPEQDQIEAQLPLPINISVVCEFLSHRT

>sp|Q9Z8P3|ACP_CHLPN Acyl carrier protein OS=Chlamydia pneumoniae OX=83558 GN=acpP PE=3
SV=1

MSLEDDVIAIIVEQLGVDPKEVNENSSFIEDLNADSLDLTELIMTLEEKFAFEISEEDAE
KLRTVGDVFTYIKKRQAEQ

>sp|Q9Z8L0|BSDC_CHLPN 4-hydroxybenzoate decarboxylase subunit C OS=Chlamydia pneumoniae
OX=83558 GN=CPn_0328 PE=1 SV=1

MSFLRRHISLFRSQQLIDVFAPVSPNLELAIEHRRVIEDQGPALLFHNVISSFPVLTN
LFGTKHRVDQLFSQAPDNLIARVAHLISSTPKLSSLWKSRLDLKRISLGLKKARFRFP
FVSMSSVNLDHLPLLTSPWEDGGAFLTPLVYTESPTLTTPNLGMYRVQRFNQNTMGLHF
QIQKGGGMHLYEAEQKKQNLVSVFLSGNPFLTLSAIAPLPENVSELLFATFLQGAKLLY
KKTNDHPHPLLYDAEFILVGESPAKRRPEGPFGDHFGYYSLQHDFPEFHCHKIYHRKDA
IYPATVVGKPYQEDFYIGNKLQEYLSPLFPLVMPGVRRLKSYGESGFHALTAAVVKERYW
RESLTALRILGEGQLSLTKFLMVTDQEVPLDRFSVVLETILERLQPDRLIIFSETAND
TLDYTGPSLNKSGKGFIMGIGKAIRDLPHGYQGGKIHGVQDIAPFCRGCLVLETSLEDRC
IKSLHHPDLKSWPLIILADNLRETIQSEKDFLWRTFTRCAPANDLHALHSHFATHRPNY
NFPFVIDALMKPSYPKEVEVDPSTKQKVSEWRWHAYFPNKETFYI

>tr|Q9Z8Y8|Q9Z8Y8_CHLPN Oligopeptide Binding Protein OS=Chlamydia pneumoniae OX=83558
GN=oppA_2 PE=4 SV=1

MLRFFAVFISTLWLITSGCSPSQSSKGIFVVMKEMPRSLDPGKTRLIADQTLMRHLYEG
LVEEHSQNGEIKPALAESYTISEDGTRYTFKIKNILWSNGDPLTAQDFVSSWKEILKEDA
SSVYLYAFLPIKNARAI FDDTESPENLGVRALDKRHLEIQLETPCAHFLHFLTLPPIFFPV
HETLRNYSTSFEEMPITCGAFRPVSLEKGLRLHLEKNPMYHNKSRVKLHKIIVQFISNAN
TAAILFKHKKLDWQGPPWGEPIPPEISASLHQDDQLFSLPGASTTWLLFNIQKKPWNNAK
LRKALSLAIDKMLTKVVYQGLAEPTDHILHPRLYPGTYPERKRQNERILEAQQLFEEAL
DELQMTREDLEKETLTFTSFYSYGRICQMLREQWKKVLKFTIPIVGQEFFTIQKNFLEG
NYSLTVNQWTAAFIDPMSYLMIFANPGGISPYHLQDSHFQTLLIKITQEHKKHLRNQLII
EALDYLEHCHILEPLCHPNLRIALNKNIKNFNLFVRRTSDFRFIEKL