**S1 Fig. Amino acid sequences of OBPs used in phylogenetic analyses**

>DvalOBP1

MLTKTILIWAAILLTVFIPKGNCRLTEKQLAAAIKLVRNMCMGKSKANPEDIEKMHQGNWDVDYQAQCYMWCGFNMYKMLDKENHFDKKAALQQMDQLPIDLQEYVVKCMDQCENAVTNFDDKCVVAFEYSKCLYFCDPEKYFLP-

>DvalOBP2

MKQLVMVVLTALCVVHCKGLECGLSKISSEHFRKIASECVKDNETLNRIWELTSETSMEEDSVSSDEEVPVTKGREAPNFHDLGSSAHRNMKMSGASRTKRSRKGFNNESPMSNVQKKSSPASTTTEHTTTMQSEENEENAAANNVEESGEVCILQCIFEKLEMTDTNGLPDHKKVASALVKSASGRETQDFLQDSVDECFQETEEGDFENSCEYSTKLVTCLAGKGKSNCADWPVGDLPF-

>DvalOBP3

MHCSRACLIVFFSICGLSSSLKITLPPELQEYVDDLHKLCLEKGGLTENDHQTYDINHKNEKMMCYMKCLMLESKWMKSGGEIDYDFIETQAYPEVKDLLLNALNKCRTIEEGADLCEKSYNFNKCLYDADPVNWFFV-

>DvalOBP4

MNTALKVFLVALAIPTIMGLSDEMQELANQLHTTCIGETGAAEDAITNARNGDFSEADSFKCYIKCLLSQMAIIDDNDGTIDVDAMVAVLPEEIQEATEPIIRKCGSIIGANPCDSAWLTHKCYYKEGPEHYFLI-

>DvalOBP5

MSEKTHFALVALLLTCLVNIIDADQREKAVEFQRDCMEAHGLLEDELHEIMDGKPIQNEAFYFHFFCVVKKAKLISDNGIVNTDHFEENLKGVIDEENMAHVAALTRRCLIQRDDIFTTIKMAIDCFYSSEHKL-

>DvalOBP6

MKSIVALFVCALTATALADAEINETAFKAGRDRIMAMSRTCDENPATAVDQKALKKYLQSNGPAPANGAAHALCITKNLGWQNEDGSVNKPVITEKVKAIFGSVDAKVQQYIEECTEAKATPEDTAEQLLKCYRKHSPKIE-

>DvalOBP7

LYKNSPGHLALTQFGAISQEKKEKKVQIIKECAEESGVSRGAVLSARKGDFQDEPLLKQYFFCINKKSQIQNE

>DvalOBP8

MRLCFKDITGGVKENKPDRGFGNHRNFDLFSCEAVEKRKSDMTCVELCKLQKQGLISDDGSPKAEQISTYLREAFTTQTWFEKESQGIVDKCVNEAINATKNPVKFYTEGNKLCSRSGIVLKHCLFNSIQLSCPADQIKDKNACERFQERAKKGKDLFDQPPGPPPFDDNREE-

>DvalOBP9

MKSLAVVFAVLIAASLADQVQDIWDRVHQQCQQSPNTHVPQEIFDQLKRGETPILPANFGLHANCMLKKMNLQDNDGHIISSGVKEAAQRHYQSAEKINQIVKDCSATKKTKEETALNLFTCLGQNRVNIG

>DvalOBP10

MQLLFVAVLVIALVQVNSLTDKQKELLTQHYNQCVAISKVDQAVLQKARAGDFANDPNLKTHIKCISEKIGFQGTDGKFRRDVIEKKLKETLPGDNAKNAKLIETCVVANKDPQLQAFNAFKCLYTNAKINLL-

>DvalOBP11

MGARALNVYYTLKTSERSFLVKTSSESIAMKYLVVLSLCLAVVSAAALTKEEIKERLKAAHDKCQADPLTAIDEEALKAFKESKGKGQPPANLGPHDLCISKALKWQNADGKVNKELIKERIAENVADASKVDAIVSECAVDKENDIATAENLFKCLLRHHATALHAH-

>DvalOBP12

MHFQWLTNVSVFLCILGVAQLVAAGKPNDLFTRITPGDVEVCGKDTGVDRKDFEEAREKGALNHSMLCFLKCAMEKAGFLKDGHLEIDQAKEASPDKMTEPVVECFKAVGPISTCDDIQKVENCLPGS-

>DvalOBP13

MSNLLKLSIAFAVVSVISCQDFTEEQRKKIIENRQQCIEETKVNPDLIEKADLGDFAEDQALKCFTKCFYQKAGFVNDKGEVQKDVVEAKLPPQADKKRALEIVDKCALKGKDACETVYLIHKCYFEHTHPEADEKTAKDGKSEEKKA-

>DvalOBP14

LHNNSPRICILTMKLLIFASILVCASALDQSWRDHMKEKLTEFGIECAESEQATSEDIEALHNHKPPVTHAGRCVIFCVSKKLNLMNPDGTLNVTPQSDWIEKVKESDSEAFEKMKTVYHHCADTVEVEADACDTSLSYAHCIKEEGHKVGLYTVSAD

>DvalOBP15

MGTTIFLLVGLFMMTNAYVPNVNDKIRDFCIDDSGVSIEMVENLLANPEKELIDVESCYVHCIFTEMGLLSENGNVEIENFKSLKASEAPYIDLNCLEEIKSIDHCNEMMILRACHV-

>DvalOBP16

MKLMWILVLGAALKSTEGAMTEAQMKAALKLIRNVCQPKNKATDAQIAAMHNGDWNQDKNGMCYMNCVLNYYKLQLPDNSFDWETGLKVVESQAPPSMAGFIMETIKSCKDAVKTGDDKCKAALEITKCLYDQNPEKYFLP-

>DvalOBP17

MQVTMNQGWFLLLVSVVSVFAELDQTSLPPEAKELMAALHKNCIEQVGVSEADVDKLRAANFEEDANLKCYTRCLMAESGVMDENGAIDIEAFGEILPEAIRGNIQAIFRSCSLTKNDIVDQCVKAYEMVKCWHKENPESYFMI-

>DvalOBP18

MNGFSVFFLLLLAAVVKSDFDFSNYKEFENLAGDQREKAIKLFKECMAETGATHEMMEKSVEGDIPDDIVFKNHLVCIGKKSGFIDENGMHIKEKLKEKLTLLLGNEELVDKILDKCFMEKGSPQDTAFELAKCCHREYHN-

>DvalOBP19

MKAMFVTLTVATVVVFASADLTEEQKQKIVANGKACVAETGADPELIKAARQGKFADDAKLKAFALCMSKKSGFQNEAGEIQSDVVKQKLGLAIGDEAAAKKLVEKCLVSKGSGEETAIETFKCYYENTPTHIAVF-

>DvalOBP20

MKVFVVLCIVLFAFTLIVSAKKNKSNDEEKAKSYKKVFKECQKKDETRVDASIIRKLKKHKQVDLPANFGEHKLCVFTGIGLLKADNTVDEDKLKKKIASAKPQKDIVDNIVMDCTSSKSTLQETALNLDKCLTTYSIEF-

>DvalOBP21

MALTTWVLSIMLILPAIRALSDEMKELAQMLHNTCVAETGVNEDFIQKVNAEKIFADDENLKCYIKCLMAQMACIDDDGIIDEEATIAVLPEEYQALAAPVIRACGTKHGANPCENAWLSHRCYAEMEPSAYMLI-

>TcasOBP01

MKTVAVLLFLALAACTKQEDDDRQETIRQYRDDCIAETKVDPALIDRADNGDFTDDAKLQCFSKCFYQKAGFVSETGDLLFDVIKDKIPKEANREKALAIIDKCKELKGADSCETVYLVHKCYFLHSYGTDKKTE

>TcasOBP02

MKAFIVLVAVAVCAQALTDEQKEKIKNYHKECSAVSGVSQDVITKARKGEFIEDPKFKEHLFCFSKKAGFQNEAGDFQEEVIRKKLNAELNDLDATNKLIAKCAVKKDSPQQTAFETIKCYYENTPTHVSLA

>TcasOBP03

MKFLVVISTVLMANIVQGLTDEQKSKLEEYSKECLKESKVDESVLKEAEKGVYLDDPKLMNHVYCLVKKINSQKDKGELEVTQIKEKLMMQINDEKEVDKLIQLCLVQEKSARYSLGKCEVSS

>TcasOBP04

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>TcasOBP05

MKTIICFVFVLAGAWFCFQALTKEQIDKLEPISKECRELNGISEDTILKVRRGEAVNEPKLKNHVLCVSKKTGLASETGETNVEVLRTKLRKVSENDDEVNSIIQKCVVKKSTPEETAFEIFVCLRKVKPNFSPAN

>TcasOBP06

MNFVCVIFILVAIIGAHGLSEQQTEKLNQLSKECRALTGVSQETITNARNGNFEEDPKLK LQVLCIGKKVGIMNESSQIDENVLKAKLRKVSDNDEEVNKIYNKCAVKKPAPEETAFETI KCVMKNKPKFSPVE

>TcasOBP07

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>TcasOBP08

MENRLVLLIVINTLLLAQAAAKQDFHKKCLASSGANADTIAKVRNGKFSNDPQTQKYFGCMLRSVGVVNQAGQLQVAALRKQVPKDMKRDEAMKIYMSCKDKKGANNDETAYLLYKCFWEASPRHVKIDGQ

>TcasOBP09

MKYLLFLTVITLTCGIFAFSLSNREQAIFLSTYSTCLETSKVDSERALRTASGIIDDEPKLKEFLFCINKQNGVQDDAGNFVKDAVRKRIEHPLLTDKTMEIIVNKCTRKRETGEETAYQFLKCSYFTIMNEKHQ

>TcasOBP10

MNIYTCLVLVVIAASAQHLTEEQKNNWRKWSNECKVLIGVSQEAINKIRNNEFDSVDDKIKKHGLCFAKKASLADSSGNIIINQIKIKLKRVIEDDEEVDRIVTKCTIRKNTPEETTFETFRCLRENSSKFVPV

>TcasOBP11

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>TcasOBP12

MKIVLCLLALATVALAKKCFLAEDTDKLEVMINECKTKTGVPDDILQKARNGEKIDDPKLREHALCMMKKSEMMNDAGEMQMDKIRARIKHAVSNEAEGTRIMNECAVKKDTPLATAYEMICCLIRNKNSVDE

>TcasOBP13

MKVFVCLAVFALVAAAQAETAKEKLRKYSDECKSVSGVSEELLNKVRNHEDVHDPKLDEHGFCILKKAGFMNEAGDILADTIKTKLKENSEHPDTVDALVEKCNEKKDTPQHTASHLFTCLVDKKVHSH

>TcasOBP14

MKLFILLSLLSVCYARKWFDKDPQDVAKWQKECFEASGVSMESMNKLPNITLSEDPKLGENAFCLLKKLGFISEDGTLLIEKLRTSLKNQWGDEIANKLVNECARQKSTPQETAHEMFLCIPAKLK

>TcasOBP15

MKIVLICVLIGLVVAKQQKQDTLDEEKEKMKKWTQECIQESGVTSEILQQLRNQKRVEDPKLKEYTFCTFKKNGFMNEDGKLQYDVIKSTLMKVSGSEEEANKVVKDCVVEKSTPQDTAFETVDCWYRYKKN

>TcasOBP16

MIRYYIVLLLYFFAPPGISEEMQELVNQLHSTCVAETGVSEDLINKVNSDKVMIDDEKLKCYIKCLLTETGCISDDGVVDVEATIALLPEDMKAKTTPVIRSCGAKMGANPCESAWLTHKCYLETSPADYVLI

>TcasOBP17

MSPLLLIFISCLFPRGISEEMQELANTLHATCVDETGVSEDAIESARKGNFAPDDKLKCYMKCIMEQMACIDDEGIIDVEATIAVLPEEYQAKAEPIVRKCGTKIGANACDNAFLTNKCWYEEDPEVSLQLN

>TcasOBP18

MYKTRVIYVLFALCLVEIFVSRAIEMDDDMKELINNLHNTCTGETGATDDQIENARKGNFAEDDSFKCYFKCVFDQMGCMTDDGKVDSEAVIAVMPPELADKIASTVRGCTEVGANPCETAWLANKCYQKSNPDVSKVSSNVRSD

>TcasOBP19

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>TcasOBP20

MMPLKNLIILIVCPLFVDIPPDLQAEIDGYYDICYKQIGLTKDDLKAYKIGDRDPKIMCFMKCVFVEAKWMDENENLQYDYIKNTIHHSIRHITLPELENCGKKAEGDKCEKSFSFFNCMNKAEPEDWVLIQ

>TcasOBP21

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>TcasOBP22

MKMCVIFTLLLLVVLASAEEDNVGKIESVEKKCQEKTGVSEESLQKIMRLEEVDDPLVKE NALCTLKAYGVMDDDGNIFPDKFEEKLKPEIGADEAKRVAEKCAVKKDSPEETAHQTLWC ATEENALTDTSQEQ

>TcasOBP23

MKISTLVAILVLAGSAVCADEDNLNTENVQSIEEDCQKETGVSDESLQELSETGDSDDPLVKKNALCILKAYGVIDDQGEISEDKLEEKLEPDRGKEEAEKVAKSCAVKKDSPEETAHEALLCMQQKSQK

>TcasOBP24

MKSFVIFVLIIVITGQINATPSLDDFKKVQKDCQKKTGVSDESINKVNNLEPVCDDLLLQENALCILKTYEVMDEEGKICPDKLMEVLEPKFGKEKAEKLIEKCTLEKDTPQLLAHATLFCLSVQKYVV

>TcasOBP25

MNSVLFLLVCALLDKEFLMQFLQKIKKVSEDCIAETQATKNDIKTLLEHKIPDSHEGKCMIFCFHKHFQIQNEDGSLNKVAAISLLEPIKDHSQDIYDKVVKIFNTCFDSAERDDDSCIYASNLAECAIRESKSVSVQ

>TcasOBP26

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>TcasOBP27

MKSTWFFLLLACSLTCAFLEKMQEFGAQCAEETDATSDDIAELIARKLPPSTHEGKCMIFCMQKKFNMMKENGGIDRAGAIAALKPLQKADPELHQKVLKIFVTCGMRVKPSPDPCDTATELALCGKKEAEAVFCRLGWKTLS

>TcasOBP28

MKYFVVFASLFLATNALSQDFIDKFVAKVKSIGETCVPETNASKDDISSLLAHKMPDSHEGKCLIFCFHKQFQIQNDDGSINREGAIKALEPLKADDAELYEKVISIFKKCESTPVDGDSCLYAASLAECAVKEGRAVSFWKNTNFKLI

>TcasOBP29

MKFLLVFLSVAILCTFAMDESFLQQTRDRVKAIVKECVTEEKATDSDFDDIMALKIPTSHEGKCVFFCSHKKFNMQHPDGSINKEGALDTFEVVKDVDAEFHDKVITVYNHCLSTPVDPDPCVYSVNLFQCFMKEAKAVRK

>TcasOBP30

MKLLITLATLVVATYAIDKEFVQELRQKLRSHVEACAKEVNAGPDDVSAIFAHKLPATHEGKCIFFCMHKLYNAQNEDGSLNMAGALANLELIKDMDPDVYTKVSTSFKNCESAPFDSDPCLYAANLVTCIVKEGRAVSNNFSGFFF

>TcasOBP31

MQLLVVVLAVCVLGANAGVSIILDPKFLEKLTQEVQAVGTSCGEKEHATADDMIEIMEEKFPPTSHEAKCVVACFYKHYKMMKEDGTFDKDAAVKAFDEIKAQDAEIHAKILKVIDACDAKKQMSDDHCVSAASMAGCVKTEAIAV

>TcasOBP32

MLILIAVNCHKCIIVSALSLSATVFGQSLSEDEMRENARKLMTSCKDKVGASDADVEALKMHQMPESREGFCMLECVFDSAKIMQDGKFSKSGMIEGFKPLIGDDKAKLESLEKLSATCESELGDGEDKCETAKRLVECVIKNGKTHGFEVPPPRE

>TcasOBP33

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>TcasOBP34

MSKTVFIFVIFFYLDFYATGDESVYLSNHEACVKLSGVDETLLETIYEGDVFEDMKFKTYIHCFFKKSGFQDENGVMHFDAIKSSFHKDFSQTENIDKTITECEEKKLNGESALETAFLHFKCFMGEL

>TcasOBP35

MKAILLLLVATLSFYHMSEAQMKAALKLVRNVCQPKTKATNEQIEAMHTGNWDLDKNGKCYMWCILNMYKLIGKDNSFDWEAGIATLKAQAPESVRDPAIASVNNCKDAVKTTSDKCEAAYEIAHCMYLDNPEKYFLP

>TcasOBP36

MKYFPHLCLCLIFFELSEAAMSEAQLKAAVKLVRNMCQPKSKATNEDIEKMHHGDWNIDRTAMCYMHCALNSNKLITKENVFNRDYAITLAEKNLPTALKTASIEAANLCKDSAKTLDDKCVAAYEISKCLYESNPEKYFLP

>TcasOBP37

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>TcasOBP38

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>TcasOBP39

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>TcasOBP40

MNPITSVILTFLFVFSFGEKESEEAQIFTELDGPAAELRDQCLEKNSMKVTDLKTYNTSNDIPEKELCFYKCFYEGVEFIDANGNLNVNNMKEIPAISELGDEVLNEITACVEKIGKIRCCGDLRKIEQCYQNITM

>TcasOBP41

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>TcasOBP42

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>TcasOBP43

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>TcasOBP44

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>TcasOBP45

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>TcasOBP46

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>ApOBP1

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>ApOBP2

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>ApOBP3

MTTVTYFVAAVLLFCYYTNTNALLENYPPPEVLEYLKPYHTICTEKIGVSDDEVKNYKIEDNSEKMMCYMRCLGLESKWLTPDNKLQIDYIMETRLDSIADLVKNIVDNCKDVPDGTHECEKAYNLHKCAAKIEPERWFLP-

>ApOBP4

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>ApOBP5

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>ApOBP6

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>ApOBP7

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>ApOBP8

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>ApOBP9

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>ItypOBP10

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>ItypOBP11

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>ItypOBP12Fix

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>ItypOBP14

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>ItypOBP15

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>ItypOBP2Fix

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>ItypOBP3

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>ItypOBP4

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>ItypOBP5

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>ItypOBP6

MVLYLCDLVQLAPTNQTEEVTTSTKRQLTREKKKKIGKTCMLETGVRIETILRAIKEDIPKNDEKYKSYLVCSYKKQGYLSEDGGTMLYDNLYSFLQESAGYAKEDLHYIDDCKTITAETPGDLCLKKLVGILDGLHKVEKNREIDTNTIES

>ItypOBP7

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>ItypOBP8

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>DponOBP1

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>DponOBP2

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>DponOBP3

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>DponOBP4

MGKQAGFINEAGDVLKDVLKEKSLKLFNDPALVQKLIDQCIVKKETPQETSYHAHVCLYKNSPGHLALTQFGAISQEKKEKKVQIIKECAEESGVSRSAVLSARKGDFQDEPLLKQYFFCINKKSQIQNEAGEYKTDVIRKGLTELFNAEEANRIIEKCARIQDSALNTAFQSFKCFYNEAPEITGVF

>DponOBP5

MKTALKVFLVALAIPTIMGMSDEMQELANQLHTTCIGETGAAEDAITNARNGDFSEADSFKCYIKCLLSQMAIIDDNDGTIDVDAMVAVLPEEIQEATEPIIRKCGSIIGANPCDSAWLTHKCYYKEGPEHYFLI

>DponOBP6

MFKSVSFLLLILALGSLDAKITLPPELQEYVDDLHKLCLEKGGLTENDHQTYNINDKNEKMMCYMKCLMLESKWMKSGGEIDYDFIETQAYPEVRDLLLSALNKCRTIEEGADLCEKSYNFNKCMYEADPVNWFFV

>DponOBP7

MKVFIVAFVVLGVVFAVNADLTEEQKQKIVANGKACVADTGADPELIKAARQGKFADDAKLKAFALCMSKKIGFQNEAGEIQSDVVQQKLGSAIGDNEAAKKLVEKCLVSKGSGEETAIQSFKCYYENTPTHIAVF

>DponOBP8

MDEPTFNRFAYLKANFPIGTQLHNTSPRICILTMKLLIFASILVCASALDQAWRDHMKEKLTEFGLECAESEQATSEDIEALHNHKPPVTHAGRCVIFCVSKKLNLMNADGTLNVTPQSDWIEKVKETDSEAFEKMKTVYHHCADTVEVEADACDTSLSYAHCIKEEGHKVGLYTVSAD

>DponOBP9

MKVLVVLCIVLIAFTLIVSAKKNKSNDEEKPKSYKKVFKECQKKDETRVDASIIRKLKKHKQVDLPANFGDHKLCVFKGIGLLKADNTVDEDKLKKKISSAKPQKDNVDSIFTECKSSKSTLQETALNLDRCLTTNSIEF

>DponOBP10

MLTKTILIWAAILLTVFISTGNCRLTEKQVAAAVKLVRNMCMGKSKVNPEDIDKMHQGNWDVDYEAQCYMWCGFNMYKMLDKENHFDKKSALQQMEQLPTDLQDYVIKCMGQCENAVTNFDDKCVVAFEYSKCLYFCDPEKYFLP

>DponOBP11

MKSLVVFCALLVMALAHDPHGLDSVHKECHNEVASQHYLCMAKGLHLVTPEGKVNVNGVKTHAGHVVSESAKIDQIAKECAVDHASTEETVNHLFKCLEEKHVLSLAGHVAPQHHH

>DponOBP12

MKLMWILVLGAALKKADGAMTEAQMKAALKLIRNVCQPKNKATDAQIAAMHNGDWNQDKNGMCYMNCVLNYYKLQLPDNSFDWETGLKVVESQAPPSMAGFIMETITGCKDAVKTRDDKCKAAVEITKCLYDQNPEKYFLP

>DponOBP13

MFPAIKFLIVLGVVAVATRADRQQVVDFHRPCLDHHEIEDDDLHFALDKIKMRDDDEFYLHFFCVAKQGQLMTEDGTVNTDNFETNMKGIIDEDNMENVAAIVRLCLIQKDTVLQTIRNAVDCFMGKDHKL

>DponOBP14

MPVTMNQGCFLLVVSAVLVFAELDQTSLPPETKELMAALHKNCIEQIGVSEADVDQLRAANFEEDAKLKCYTRCLMAESGVMDENGAIDVEAFAEILPEAVRGNIQTIFRRCSLTNKDIEDQCVKAYEMVKCWHKEDPESYFMI

>DponOBP15

MMTAFLLCVLMAVVNQQVMGHPPRGPPGPPPFLGHPDPESANECRTEVGLTSEDRETKKNGELTEKELCFIRCLGQKNGALSDAGALNIETIKNDLPDHLEDSEAVIACLKKVGTVTTCQHIKKVAKCYPEPKEPMDRT

>DponOBP16

MGPTILLLVGLVMMTNAYVPNVNNKIRDFCIDDSGVSIEMVENLLANPEKQLIDVESCYLHCIFTEMGLLSENGNVEVEKFKSLKASEAPYIDLTCLEEIKSIDHCSEMMILRACHV

>DponOBP17

MALTTWVVSIMLILPAIRALSDEMKELAQMLHNTCVAETGVNEDFIRKVNAEKIFADDENLKCYIKCLMAQMACIDDDGIIDEEATIAILPEEYQALAAPVIRACGTKHGANPCENAWLSHRCYAEMEPSVSG

>DponOBP18

MALTTWVVGIMLILPAIRALSDEMKELAQMLHNTCVAETGVNEDFIRKVNAEKIFADDENLKCYIKCLMAQMACIDDNGIIDEEATIAILPEEYQALAAPVIRACGTKHGANPCENAWLSHRCYAEMEPSAYMLI

>DponOBP19

MNGLCVFFLLLLAAVVKSDFDFSNYKEFEHLAGDQREKAISIFKECMAETGATHEMMEKSVEGDIPDDIVFKNHLVCIGKKSGFIDENGLHSKEKLKEKLTLLLGDEGLVDKILDKCFMEKGTPQDTAFELAKCCHKEYHN

>DponOBP20

MKQLFMVVLTALCAVHCKGLECGLSKISSEHFRKIASECVKDNETLNRIWELTSEASMDDESASSDEEVPITQGKEAPNLDLGSSPHKSMKMSRASRTKRSRKIFNNESPMSQRKPSPASTTTEQTTTVQSEENEDIADANNVEESGEVCLLQCIFEKLEMTDTNGLPDHKKFAAALVESATGRETRDFLKDSVDECFQETEEGDFEDSCEYSTKLVTCLAGRGKSNCADWPVGDLPF

>DponOBP21

MKQLFMVVLTALCAVHCKGLECGLSKISSEHFRKIASECVKDNETLNRIWELTSEASMDDESASSDEEVPITQGKEAPNLDLGSSAQKSMKMSRASRTKRSRKSFNNESPMSQRKPSPTSTTTEQTTTIQSEENEDNADANNVEESGEVCILQCIFEKLEMTDTNGLPDHKKFAAALVESATGRETRDFLQDSVDECFQETEEGDFENSCEYSTKLVTCLAGRGKSNCADWPVGDLPF

>DponOBP22

MSQKIHFALVAVFLTFLVNIIEADQREKAVEFQRGCMEAHGLLEDELHEIMDGKPIQNEAFYFHFFCVVKKAKLISDNGIVNTDHFEENLKDVIDEEHMAHVAALTRKCLIQRDDIFTTIKMAIDCFYSSEHKL

>DponOBP23

MHCLRVCLIVFFSICGFSSSLKITLPPELQEYVDDLHKLCLEKGGLTENDHQTYNINDKNEKMMCYMKCLMLESKWMKSGGEIDYDFIETQAYPEVRDLLLSALNKCRTIEEGADLCEKSYNFNKCMYEADPVNWFFV

>DponOBP25

MSNLLKLSIAFAVVSVISCQDFTEEQRKKIIENRQQCIEETKVNPDLIEKADLGDFAEDQALKCFTKCFYQKAGFVNDKGEVQKDVVEAKLPPQADKKRALEIVDKCALKGKDACETVYLIHKCYFEHTHPEADEKTAKDGKSEEKKA

>DponOBP26

MAKTTIVLCLMGIFCMRSVQPNPVRTHKLLSKSELHEIATSCLEEVQLSGSIVYNILKTEIFPRDNNKYRDFLACSYKKQGFLSEDGTKLLYDNLFHFISHFYGPTEVQALKHCNLIRREDPGFLCFDTMKCIIDALKQLEFDANADIGIETNQVV

>DponOBP27

MNFSFIVALTLYLPISNGFLTVPKCLISTGARIKDLHNLATGDSLPESSRCFVKCVGEESGLILDGTLHSEHFEALPMVSRLKADVFVDARRCIESVQGIKIESCKDIDNLNDCMKIVYRQKYSDSK

>DponOBP28

MKYLVVLSLCLAVVSAAALTKEEIKERLKAAHDKCQADPQTAIDEAALKAFKDSKGKGQLPANMGPHDLCISKALKWQNADGKVNKELIKERITDNVADASKVDAIVNECAVDKENEIATAENLFKCLLKHHATAVHGH

>DponOBP29

MKAMFVTLTVATVVVFASADLTEEQKQKIVANGKACVADTGADPELIKAARQGKFADDAKLKAFALCMSKKIGFQNEAGEIQSDVVQQKLGSAIGDNEAAKKLVEKCLVSKGSGEETAIQSFKCYYENTPTHIAVF

>DponOBP30

MQLLFAAVLVIALVQVNSLTDKQKELLTQHYNQCVAISKVDQAVLQKARAGDFANDPNLKTHIKCISEKIGFQGTDGKFRRDVIEKKLKETIPGDNAKNAKLIETCVVANKDPKLQAFNAFKCLYTNAKINLL

>DponOBP31

MTFQGGVSVFLCILGVAQLVAAGNSDDLFARIAPADVEMCGKDTGVDRKEFEDAREKRALNHSMLCFLKCAMEKVGFLKDGHLEIDQAKGSLPDKMMEPVVECFKAVGPISTCDDIQKVEDCLPSS

>DponOBP32

MNQGCFLLVVSAVLVFAELDQTSLPPETKELMAALHKNCIEQIGVSEADVDQLRAANFEEDAKLKCYTRCLMAESGVMDENGAIDVEAFAEILPEDIRGNIQTIFRRCSLTNKDIEDQCVKAYEMVKCWHKEDPESYFMI