

## Amino acid sequences of enzymes in Supplementary Figure 19

>S.lycopersicum\_GAME25

MANKLRLEGKVAIITGAASGIGEASARLFVEHGARVVADIQDELGQKVVD SIGSDKAS  
YRHCDVTDEKQVEETVAYAVEKYGTLDIMFSNVGTLNFCSVLDMDVLA FDETM INVRG  
SALAVKHAAKVMVDK KIRGSIICNASLEGILAGAASLAYIASKHAVVG IIAAAARELGP  
HGIRVNGVSPYGIATPLVTKAYGLDAALLEEAIYGNHGLKGVKLSTMHVAQSALFLASD  
ESAYTSGQNLAVDGG LSSILKLQ

>S.pennellii\_GAME25

MANKLRLEGKVAIITGAASGIGEASARLFVEHGARVVADIQDELGQKVVD SIGADKAS  
YRHCDVTDEKQVEETVAYAVEKYGTLDIMFSNVGTLNFCSVLDMDVMA FDETM INVRG  
SALAVKHAAKVMVDK KIRGSIICNASLEGILAGAASLAYIASKHAVVG IIAAAARELGP  
HGIRVNGVSPYGIATPLVCKAYGLDAALLEEAIYGNHGLKGVKLSTMHVAQSALFLASD  
ESAYTSGQNLAVDGG LSSILKLQ

>S.tuberosum\_GAME25

MANKLRLEGKVAIITGAASGIGEASARLFAEHGARIVVADIQDELGLKV VESIGADKAS  
YRHCDVTDEKQVEDTVAYTVEKYGTLDIMFSNVGTLNFCSVLDMDVMV FDKTMAINARG  
SALAVKHAARFMVDK KIRGSIICNASLDGIVAGATSLAYIASKHAVVG IIVKAAARDLGP  
YGIRVNGVSPYGIATPLVCKAYGLDAGPLEAAIYGNGNLKG VRLSTMHVAQSALFLASD  
ESAYTSGQNLAVDGG LSSILKVQ

> S.lycopersicum\_3βHSD

MASKLRLEGKVAIITGGASGIGEASARLFVQHGARVVADIQDELGLQV VQSIGIHKAT  
YRHCDVTDEKQVEDTVAYAVQKYATLDIMFSNVGTLNFCSVLDMDMTA FDETM TVNVRG  
SALAVKHAARVMVDK KIRGSIICNVSLLEGILAGAASLAYIASKHAVVG IIVKAAARELGP  
YGIRVNGVSPYGIATPLVCKAYGLDAAPLEAAINGNANLKG VTLSTMHVAQSALFLASD  
ESAYTSGQNLAVDGG LSSILKLQ

> S.pennellii\_3βHSD

MASKLRLEGKVAIITGGASGIGEASARLFVQHGARVVADIQDELGLQV VQSIGIHKAT  
YRHCDVTDEKQVEDTVAYAVQKYATLDVMFSNVGTLNFCSVLDMDMTA FDETM TVNVRG  
SALAVKHAARVMVDK KIRGSIICNVSLLEGILAGAASLAYIASKHAVVG IIVKAAARELGP

YGIRVNGVSPYGIATPLVCKAYGLDAAPLEAAINGNANLKGVTLSTMHVQAQSALFLASD  
ESAYTSGQNLAVDGGLSSILKLQ

>C.annuum\_3βHSD

LEGKVAVITGAASGIGEASARLFVEHGARVVIADIQDELGLQIAASIGTDKASYIHCDV  
TDEKQVEEAVAYAVENSVDLDDVKAFFDETMVINARGSAVAVKHAARVMVEKKIRGSIIC  
TASLEGILAGAASLAYVSSKHAVVGLVAAAARELGVHGIRVNGVSPYGIATPLVCKAYG  
LDAGPLETAIYGNAHLKGVTLSTMHVQAQAALFLASDESAYISGQNLAVDGGLSSILKLE

>N.benthamiana\_3βHSD

MANKLRLEGKVAVITGGASGIGEARLFVEHGARVVIADIQDELGLQVVASIGTDKAS  
YRHCDVTDENKVEETVAYAVEKYGTLDIMFSNVGTLNFCSVLDIDVTAFDKTMALNVRG  
TALAVKHAARVMVAKQVKGSIICNASIEAILAGAASLAYVASKHAVVGIVKAAAARELGL  
HGIRVNGVSPYGIATPLVCKAYGCEDAASLEAGISVNAHLKGVTLSTEHIAQAALFLAS  
DESAYISGHNLAVDGGLTSMKLSY

>S.melongena\_ADH1

MANKLKLEGKVAVITGGASGIGEEASARLFVEHGARVVIADIQDDLGLLEVVTSIGADKAC  
YRHCDVSEKQVKETVAYAVEKYGTLDIMFSNAGTLGTLGSLVLEMDMTAFDMTMAVNMR  
GSALAVKHAARVMVANKIRGSIICTASVEAILAGAAPLAYVASKHAILGVMKAAAARELG  
QYGIRVNCVSPYGIATPLVCKAYHSDAGSLEASIYERAHLKGITLSTKHIANASLFLAS  
DESAYVSGHNLAVDGALSSIMS

>C.annuum\_ADH1

MIFFFCGTRLEGKIAITGAASGIGEASARLFVEHGAHVIIADIQDELGLQVVSSIGTD  
KACYRHCDVTDEKQVEETVAYAVEKYGTLDIMFSNAGMLGTFGSLDMDVKEFDLTIIV  
NTRGAALAVKHAARVMVAKNIRGSIICTASVESILAGAAPLAYIASKHGILGVVKAAR  
ELGKNGIRVNCVSPFGIATPMVCKSYGAEASYIETSVGGHANLKGVSLLTKHIAEAALF  
LASEESAYISGQNLAVDGGLSAIMRLD

>S.melongena\_ADH2

MANKLRLEGKVAVITGGASGIGEASARLFVEHGARVVIADIQDELSLQVVSSIGGDKAC  
YRRCDVSDEKQVEETVAYAVEKYGTLDIMFSNAGILGSFGLSLEMDMTAFDRIMAVNTR  
GAALAVKHAARVMVANKIRGSIICTASVEAILAGEASLAYIASKHAILGVVKAARDLG

QYGIRVNCVSPYGIATPMVCKSIGADAATIEARICGNANLKGVS LNTKHIAE AALFLGS

DESAYVSAHNLAVDGGLSSIMKLN

>S.tuberosum\_ADH1

MANKLRLEGKVAVITGGASGIGEARLFVEHGAHVVIADIQDELALQVSSIGSDNVC

YRRCDVTDEKQVDETVAFVQKYGTLDIMFSNAGILGSSGSLLEMDMAVFDRTMAVNTR

GAALAVKHAAKVMVAKKIRGSIICTASVESILAGAASLAYIASKHAVLGVVKAAARELG

QHGIRVNCVSPFGVATPMVCKSFGADAAAMEATIRGNANLKGVS LTTMHIAE AALFLAS

DESAYISAHNLAIDGGLSSIMKINVN

>S.lycopersicum\_ADH1

MANKLRLEGKVAVITGGASGIGEEAARLFVEHGARVVIADIQDELALQVASSIGSDNVC

YQRCDVSDKQVNETVAFAVEKYGTLDIMFSNAGILNPFESILEMDMTVFDRTIAVNAR

GAALAVKHAARVMVANKIRGSIICTASVESILAGAAPLAYIASKHAVLGVVKAAARELG

QHGIRVNCVSPFGIATPMVCKSFGADAAAIEAKICGNANLKGVS LTTMHIAE AALFLAS

DESAYISAQNLAVDGGLSSMMKLM

>S.pennellii\_ADH1

MANKLRLEGKVAVITGGASGIGEEAARLFVEHGARVVIADIQDELALQVASSIGSVNVC

CRRCDVSDKQVNETVAFAVEKYGTLDIMFSNAGILNPFESILEMDMTVFDRTIAVNAR

GAALAVKHAARVMVANKIRGSIICTASVESILAGAAPLAYIASKHAVLGVVKAAARELG

QHGIRVNCVSPFGIATPMVCKSFGADAAAIEAKICGNANLKGVS LTTMHIAE AALFLAS

DESAYISAQNLAVDGGLSSMMKLM

>N.benthamiana\_ADH1

MANKRRLEGKVAVITGAASGIGEARLFVEHGARVVIADIQDELGHQVVASIGTDKAS

YRHCDVTDEKQVEDTVVYTVKEYGTLDIMFSNAGTIGTLGSILDMDMTVFDRTMAINAR

GSALAVKHAARVMVTKKIQGSIICTASLEATLAGAAPLAYVTSKHAILGVV KAAARELG

QHGIRVNCVSPYGIATPMVCKTFGGDAAPIEASISGNANLKGITLSTKHIAE AALFLAS

DESAYVSAHNLAVDGGLSSIMKLD

>N.benthamiana\_ADH2

MANKLRLEGKVAVITGAASGIGEARLFVEHGARVVIADIQDELGHQVVASIGTDKAS

YRHCDVTDEKQVEDTVVYAVEKYGTLDIMFSNAGTIGTLSSILDMDMTVFDRTMAINAR

GSALAVKHAARIMVTKKIQGSIICTASLEAILAGAAPLAYVASKHAILGVVAAAARELG  
QHGIRVNCVSPYGIATPMVCKTFGGDAAPIEASISGNANLKGITLSTKHIAEAALFLAS  
DESAY

>A.thaliana\_ADH

MSGKRLDGKIVIITGGASGIGAESVRLFTEHGARVVIVDVQDELGQNVAVSIGEDKASY  
YHCDVTNETEVENAVKFTVEKYGKLDVLFNAGVIEPFVSILDNLNELDRTIAINLRG  
TAAFIKHAARAMVEKGIRGSIVCTTSVA AEIAGTAPHGYTTSKHGLLGLIKSASGGLGK  
YGIRVNGVAPFGVATPLVCNGFKMEPNVVEQNTSASANLKGIVLKARHVAEAALFLASD  
ESAYVSGQNLAVDGGYSVVKP

>M.truncatula\_ADH

MSRKRLEGKVAIVTGGASGIGAETA KTFVENGAFVVIADINDELGHQVATSIGLDKVS  
Y  
HHCDVRDEKQVEETVAFALEKYGTLDIMFSNAGIEGGMSSSILEFDLNEFDNTMAINVR  
GSLAAIKHAARFMVERKIRGSIICTASVAASVAGNRGHDYVTSKHGLLGLVRSTCGELG  
AYGIRVNSISPYGVATPLACRALNMEMSKVEANMKDSANLKGITL KATHIAEAALFLAS  
EESAYISGHNLVVDGGFSVINSVCVPTTIKK

>C.annuum\_ADH2

MAVVMQKLGKVAIVTGGASGIGEATVRLFAEHGARAVVIADIQDEKGRAVAESIPLQV  
CSYVHCDVSDENQVKGLVDWTVKKYGQLDIMFSNAGTVGNSGQKVLDL DLSEFDRVIRV  
NARGMAACVKHAARAMVEQGGRSIICTG SVGASKGAAWRTDYTMSKHAVLGLVTSASR  
QLGKYGIRVNSISPSAVMTPLMSSAE AETSMKVLKMYGPLTSLKGITLTVKHLADAVLF  
LASDDSAFVNGHDLLVDGGLLHLPDPMSSL

>S.tuberosum\_ADH2

MAEVTQKLGKVAIVTGGASGIGEARLFAQHGARAVVIADIQDGKGRAVAVSIPSQI  
CSYVQCDVSDENQVKAMVDWTVQKYGQLDIMFSNAGVVGNSGQKVLDL DLSEFDRVMNV  
NARGMAACVKHAARAMVDKRVRSIICTGSIGASRGGAWRTDYIMSKHAVLGLVRSACR  
QLGEYGIRVNSISPSAVMTPLMISAEPEVSMKSLKRYGPQTSLKGITLTVKHLAE AALF  
LASDDSAFSSRSNEFIVKQREQPNLSLFFF

>S.melongena\_ADH3

MSAITQKLNKVAIVTGGASGIGEARLFAQHGARAVVIADIQDEKGRAVAQSIPSQI

CIYVKCDVSDENQVKSMVDWTVQQYQQLDIMFSNAGTVGNSGQKILDLDLSEFDRVMNV  
NARGMAACVKHAARAMVEKRVRSIICTGSIAASRAGAWRTDYAMSKHAVLGLMRSASR  
QLGEYGIRVNSISPSAVMTPLMISAEAEASMRVLKMYGSVTSCLKGITLTVKHLADAVLF  
LASDDSVFVSGHDLAVDGGGLISLPDPMSSL

>O.sativa\_MIS2

MFTAMHRILSRGRRTPAASSSVTAFATASDSQRLAGKVAVITGGASGIGRATAEEFVR  
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NAGIPGDLTPVPGALDLADFDRVMAVNTRAVVAGVKHAARVMVPRRRGSICTASTAG  
VIGGVAVPHYSVSKAAVLGLVRAVAGEMARSGVRVNAISPNYIWTMPMAAVAFARWYPSR  
SADDHRRIVENDINEMDGVTLAEDVARAAVFLASDEAKYVNGHNLVVDGGYTVGKVPN  
MPVPDGH

>O.sativa\_MIS3

MFRAAQLLLRETNRALGAATSPAGFVSGFSTASNSAQRLAGKVAVITGGASGIGKATAK  
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LYNNAGVMGAMPQDDMASVDLANFDRMMAINARAALVGIKHAARVMSPRRSGVILCTAS  
DTGVMPMPNIALYAVSKATTIAIVRAAAEPLSRHGLRVNAISPHGTRTPMAMHVLSQMY  
PGVSKDDLEKMADAAMDAGEVMEPKYVARAALYLASDEAKYVNGHNLVVDGGFTSHKGS  
DTRLN

>A.thaliana\_ABA2

MSTNTESSYSSLPSQRLGKVALITGGATGIGESIVRLFHKHGAKVCIVDLQDDLGGE  
VCKSLLRGESKETAFFIHGDVRVEDDISNAVDFAVKNFGTLDILINNAGLCGAPCPDIR  
NYSLSEFEMTFDVNVKGAFLSMKHAARVMPEKKGSIIVSLCSVGGVGGVGGPHSYVGSK  
HAVLGLTRSVAAELGQHGIRVNCVSPYAVATKLALHLPEEERTEDAFVGFNFAAANA  
NLKGVELTVDDVANAVLFLASDDSRYSISGDNL MIDGGFTCTNHSFKVFR

>O.sativa\_MS3

MAGSSYGDVHESARKLVGKVALITGGASGIGECTARLFVKHGAQVVVADIQDEAGARLC  
AELGSATASYVRCDVTSEDDVAAAVDHAVARYGKLDVMFNNAGIGGAACHSILESTKAD  
FDRVLAVNLTGPFLGKHAARVMVAAGRGGCIIGTASLASAVAGTASHAYTCAKRALVG  
LTENAAAELGRHGIRVNCVSPAAAATPLATGYVGLGEAFEAAAMEAVANLKGVRLRVED

IAAAVLFLASDDARYVSGHNLLIDGGCSIVNPSFGIFKD

>O.sativa\_MS1

MAAGSSHSADARKLVGKVAVITGGASGIGACTARLFVKHGARVVADIQDELGASLVA  
ELGPDASSYVHCDVTNEGDVAAAVDHAVARFGKLDVMFNNAGVSGPPCFRMSECTKEDF  
ERVLAVNLVGPFLGTKHAARVMAPARRGSIISTASLSSSVGAASHAYTTSKHALVGFT  
ENAAGELGRHGIRVNCVSPAGVATPLARAAMGMDDEAIEAIMANSANLKGAGALKADDI  
AAAALFLASDDGRYVSGQNLNRVDGGLSVVNSSFGFFRD

>O.sativa\_MS2

MAGSSHSADARKLVGKVAVITGGASGIGACTARLFVKHGARVVADIQDELGASLVAE  
LGPDASSYVHCDVTNEGDVAAAVDHAVATFGKLDVMFNNAGVTGPPCFRITESTKEDFE  
RVLAVNLIGPFLGTKHAARVMAPARRGSIISTASLSSSVSGTASHAYTTSKRALVGFT  
NAAGELGRHGIRVNCVSPAAVATPLARAAMGMDMDEETIEAIMEKSANLKGVLKVVDDI  
AAAALFLASDDGRYVSGQNLNRVDGGVSVVNSSFGFFRD

>A.thaliana\_11/17-βHSD

MELINDFLNLTAPFFTFGLCFPLPPFYFFKFLQSIFSTIFSENLYGKVVLTIGASSGI  
GEQLAYEYACRGACLALTARRKNRLEEVAEIARELGSPNVVTVHADVSKPDDCRRIVDD  
TITHFGRDLHLVNNAGMTQISMFENIEDITRTKAVLDTNFWGVSYYTTRALPYLRQSNG  
KIVAMSSSAAWLTAPRMSFYNASKAALLSFFETMRIELGGDVHITIVTPGYIESELTQG  
KYFSGEGELIVNQDMRDVQVGFPPVASASGCAKSIVNGVCRKQRYVTEPSWFKVTYLWK  
VLCPELIEWGCRLLYMTGTGMS EDTALNKRIMDIPGVRSTLYPESIRTPEIKSD

>A.thaliana\_TR

METDKRWSLAGKTALVTGGTRGIGRAVVEELAKFGAKVHTCSRNEELNACLNDWKANG  
LVVSGSVCDASVRDQREKLIQEASSAFSGKLNILINNVGTNVRKPTVEYSSEYAKIMS  
TNLESAFHLSQIAHPLLKASGVGSIVFISSVAGLVHLSSGSIYGATKGALNQLTRNLAC  
EWASDNIRTNCVAPWYIKTSLVETLLEKKEFVEAVVSRTPLGRVGEPEEVSSLVAFCLL  
PASSYITGQVISVDGGFTVNGFSYAMKP

>Z.mays\_LCR

MSTGGRKMRTACVTGGNGYIASALIKVLEKGYAVKTTVRNPDDMEKNSHLKDLQALGS  
LEVFRADLDEDGSFDDAVAGCDYAFVLAAPVNLHTKNPEEEMIEPAVRGTLNVMRSCVK

AGTVRRVLTSSAAAVTTRPQLQGDGHVLDEESWSDVEYLRAHKPAGPWGYPVSKVLE  
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GCLPLVHVDDVCRAELFAAEEGAAARRYVCCGLNNTVAELARFLADKYPQYGVKTNLLS  
GERLEKPRVCLSSAKLVKEGFERYRTLDDIYDDMVEYGKALGILPDL

>A.thaliana\_ACR

MDQTLTHTGSKKACVIGGTGNLASILIKHLLQSGYKVNTTVRDPENEKIAHLRKLQEL  
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LKSXSVKRVIIYSSAAAVSINNLSTGIVMNEENWTDVEFLTEKPFNWGYPISKVLAE  
KTAWEFAKENKINLTVIPALIAGNSLLSDPPSSLSMSFITGKEMHVTGLKEMQKLS  
GSISFVHVDDLARAHLFLAEKETASGRYICAYNTSVPEIADFLIQRYPKYNVLFEE  
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>P.somniferum\_NOS

MHGQKNISERYQKFKEMEGTGKIVCVTGGAGYLASWLIMRLLERGYSVRTTVRSDPKFR  
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TCVEGTLRILQSCLSKTVKKVVTSSADAAMMISNLKAVKEIDETIWSEVDNFISKPE  
QVIPGLPSYVSVKVLTERACKFSEEHLVDVVTILPPLVVGPFITPHPPPSVSIALSII  
SGDVSMMLGVRLNAVHIDDVALAHIFVFECEKAKGRHICSSVDFPMHDLPKFISENYP  
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>A.thaliana\_4-DFR

MVREEEEDDNNGGGERKLPVADETVPSSLDDGTGLVCVTGGTGFVASWLIMRLLQRGYS  
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DPNSNETEETVTKRTVQGLMGILKSCLDAKTVKRFFYTSSAVTVFYSKNGGGGGGEVDE  
SVWSDVEVFRNQKEKRVSSSYVSKMAAETAALFEGGKNGLEVVTLVIPLVVGPFISPS  
LPSSVFISLAMLFNGYKEKYLFDTYNMVHIDDVARAMILLEKPKVAKGRYICSSVEMKI  
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QARGFL

>H.sapiens\_AKR

MDPKYQRVELNDGHFMPVLGFGTYAPPEVPRNRAVEVTKLAIEAGFRHIDSAYLYNNEE  
QVGLAIRSKIADGSVKREDIFYTSKLWCTFFQPQMVPQPALESSLKKLQLDYVDLYLLHF

PMALKPGETPLPKDENGKVFIDTVDLSATWEVMEKCKDAGLAKSIGVSNFNCRQLEMIL  
NKPGLKYKPCVNQVECHPYLNQSKLLDFCKSKDIVLVAHSALGTQRHKLWVDPNSPVLL  
EDPVLICALAKKHK RTPALIALRYQLQRGVVVLAKS YNEQRIRENIQVFEFQLTSEDMKV  
LDGLNRNYRYVVMDFLMDHPDYPFSDEY

>M.musculus\_AKR

MDSKQQT VRLSDGHFIPILGFGTYAPQEVPKSKATEATKIAIDAGFRHIDSASMYQNEK  
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PMAMKPGENYLPKDENGKLIYDAVDICDTWEAMEKCKDAGLAKSIGVSNFNRRQLEKIL  
KKPGLKYKPCVNQVECHPYLNQSKLLDFCRSKDIVLVAYSALGSHREKQWVDQSSPVLL  
DNPVLGSMAKKYNRTPALIALRYQLQRGVVVLAKS FSEKRIKENMQVFEFQLTSEDMKV  
LDDLKNIRYISGSSFKDHPDFPFWDEY

>S.lycopersicum\_AKR2

MAEATEMPYIELNTGFSIPAVGLGTWQSDPGVVGKAVETAIKMGYRHIDCAQIYKNEKE  
IGEVL SRLFKDG VVKRREL FITSKLWNTNHAPEDVPVALDKTLQDLQLEYVDLYLIHW P  
VSMKPGSVDFK PENLMPTNIPRIWEAMEKVYDSGKARVIGVSNFSTKKLEDLLQVARTP  
PAVNQVECHPSWQQAKLRELCKSNNVHLSAYSPLGSPGTTWLKSDVLKQPAVISVAEKL  
GKTPAQVCLRWGIQMGSVLPKSTHEARIKENLDVLNWSIPDDLAKFSEIPQARLLKG  
ASFAHETHGQYRTLEELWDGEI

>S.lycopersicum\_AKR1

MTMNLIKQMLVPNVNLNSGHKMPLIGMGTAPSLPEHDQLVSTLIDAIEIGYRHFDAAV  
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LYLIHLPVTM KKKVNSKDD EMRVDKEDIIPFDMRG TWEAMEECCRLGLAKSIGVSNFTC  
TKISQILHYATILPAVNQVEMHVAWRQEKMLEFCKEKGIVSAWSPLGANGLTPWGIHS  
VMESPVLKDIAIHKRKSVAQVALRWVYEQGASVIVKSFNKERMKENLQILDWELSNEEI  
AQIQEIPPCTGFNVDMVLVHPNGPYKSANQFWDGEI

>M.truncatula\_AKR

MGSVEIPTKVLNTSSQLKMPVVGMSAPDFTCKKDTKDAIIEAIKQGYRHFDAAAYG  
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IHWPLSSQPGKFTFPIDVADLLPFDVKGVWESMEEGLKLG LTKAIGVSNFSVKKLENLL



SVATILPAVNQVEMNLAWQQKKLREFCNANGIVLTAFSPLRKGASRGPNEVMENDMLKE  
IADAHGKSVAQISLRWLYEQGVTFVPKSYDKERMNQNLICFDWLSLTKEDHEKIDQIKQN  
RLIPGPTKPLNDLYDD

>P.somniferum\_COR

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HHPVSLKPGKVFVNEIPKDHILPMDYKSVWAAMEECQTLGFTRAIGVCNFSCKRLQELME  
TANSPPVVNQVEMSPTLHQNLREYCKANNIMITAHSVLGAVGAAWGTNAVMSKVLHQ  
IAVARGKSVAQVSMRWVYQQGASLVVKSFNARMKENLKFIDWELTAEDMEKISEIPQS  
RTSSAAFLSPTGPFKTEEFWDEKD

>A.thaliana\_AKR

MSALTFPIGSVHHLMPVLALGTAASPPPEPIVLKRTVLEAIKLYRHFDTSPTYQTEEP  
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KIPPSVNQVEMSPVWQQRKRELCKSKGIVVTAYSVLGSRGAFWGTHKIMESDVLKEIA  
EAKGKTVAQVSMRWAYEEGVSMMVKSFRKDRLEENLKFIDWLSLTEEEKQRISTEISQSR  
IVDGEVYISEKGPISVTEMWDGEI

>D.lanata\_3βHSD

MSSKPRLEGKVAITGAASGIGEETARLFVEHGASVVVADVQDELGRQVVASVNSDDKI  
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VRGVANTIKHAARAMVEGKVKGSIICTASVSASLGGMGPPAYTASKHAVLGLVKGACAE  
LGVHGIRVNSVAPYGVATPMPCSAVGMTSPQMEEANNSRANLKGVLKAKHVAEAAFL  
ASDESAYVSGQNLAVDGGFTVVR

>NAD(P)-binding Rossmann-fold superfamily protein [Arabidopsis thaliana]

MAEETPRLFNGFCRYAVVTGANRGIGFEICRQLASEGIRVVLTSRDENRGLEAVETLKKELEISDQSLLF  
HQLDVADPASITSLAEFVKTFQFGKLDILVNNAGIGGIITDAEALRAGAGKEGFKWDEIITETYTEECI  
KINYYGPKRMCEAFIPLLKLSDSPRIVNVSSSMGQLKNVLNEWAKGILSDAENLTEERIDQVINQLLNDF  
KEGTVKEKNWAKFMSAYVSKASLNGYTRVLAKKHPEFRVNAVCPGFVKTDMNFKTGVLVVEEGASSPVR  
LALLPHQETPSGCFFSRKQVSEF

>Mentha x piperita NMD

MGDEVVVDHAATKRYAVVTGANKGIGFEICKQLASKGITVILASRDEKRGIEARERLIKE  
LGSEFGDYVVSQQLDVADPASVAALVDFIKTKFGSLDILVNNAGLNGTYMEGDASVLNDY  
VEAEFKTFQSGAAKTEPYHPKATGRLVETVEHAKECIETNYYGSKRVTEALIPLLQSDS  
PRIVNVSSTLSSLVFQTNNEWAKGVFSSEEGLTEEKLEEVLAEFLKDFIDGKQKEKQWPPH  
FSAYKVSKAALNAYTRIIAKKYPFRINAVCPGYTKTDLSTYGHGQFTDAEAAEAPVKLAL  
LPQGGPSGCFFRDEAFCLY

>Spinacia oleracea NMD

MAEQSNFLAEKRYAVVTGANKGIGLEICRQLASQGVIVLITSRDGKKGLEALNDLIKSGISSDNLHYHQL  
DVTDPMSITALAGFINSKFGKLDILVNNAGIGGFIIIDYDAIKAIGFRNINYDEMMTQTYELAKECLETNY  
YGVKRTTEALLPQLELSDSPRIINVSSSTGMLKNIPNERIRGVLGDAENLTEEKVEAILNELLTDFKDG  
FKEKEWPSRMAAYTLKAALNAYARILAKKYPSTIISCVCPGVTKTDMNGNLGQLTVEEGAASPVVALM  
PHGSPSGLFYARSEVSSYE

>P.bracteatum SR

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