	1 10 20 30 40 50	60 70 80 90 100 110 120	130 140 150 160 170 180 190 200 204
AtWOX1 AtWOX2	GCAAG CAGUU CAAGAUCCAA COCAACGAAA CAUCAGAUCA CG CUAOUCCAAAA		cca c g — — u a ceg s a g a u a g a g c a a a ma ceu u u u u u u u u u u u ceu u com a fra ce o cea ca a a ce cea g a a esta cea cea d a esta cea cea cea d a esta cea cea cea d a esta cea cea cea d a esta cea cea d a esta cea ce
NjWOX2 VvWOX2 PhWOX2		JA CHGWACAAG CAA SEGATHAGGMCAGGCAG CG CGAG CHCAWA AG CA CAMHAA CCAG CAG GHTHA 3 CTHGWACATG CAA SEGATAAAGGMCCEC AG CG CAGAG CHCAWA AG CA CAMHAA CTGG CAGG GHTH 3 CTHGWACATG CAA SEGATAAGG	agget I — — Ta (CC) sa canage age canada CC) Cancer Ta C Lagge C — — Ta (CC) sa lagan ge canada CA CA CAN CAN CAN CANADA CANAGA CANAGA CANAGA CANAGA CANAGA CANAGA CANAGA Lagge C U — U U CC) sa lagan ga canaga c
PhWOX2 OsWOX2 GbWOX2	CTGGCGAACGCGCGGTCGACGCCGACCAAGGACCAGATCGCGGCGCGCGC	G C T G T A C C G G C A G C G C T G C G C A C G C C G A C C G C G A G C A G A T A C A G C A G A G C	
AtWOX3 NjWOX3		SCAUG — — UACCGG CASU EGUATUCCG — — NGUCCGC AAUGC CGGUG CACAULA CAA CACAU CA CAG GU CA CU UG CAAUG — — UACCGG AG CEGUATUCCG — — NGUCCGC AAUGC CGGUG CACAULA CAA CAGAU CA CAG GU CA CU UG A CAAUG — — — UACCAGAG CA EE CATA CG C — — NGUCCG AAAG CGT CCCAAAUT CAG CAGAMAA CCGCT CA CAT C	ccaaugUuucccaa cauugaagg caagaauguuuuuncuccuuu caaaaa ica caragge cagagg caagaaga Sguu CUuucccaagaagau caagg caaaaa a cuuun cuuuuncuccuu caasaaccauaasge cagaagga caagaaga Cctt CTa (CCT aaca) caaga caaa a a cuu chu chu cuu cuu cuu cuu cuu cuu cuu
VvWOX3 PaWOX3	g qag c ct cat qaagg heg ig ticca ac cicca gag cag cat gan ct hegeag g/ Cotg caa cta ca cg hegaa ticca ac gcca gag cag haga gana ct ccaa ga	AAA TG TA TA GG GGA SCAGTGAGA N CA CC CAA TG CTT CT CN GANT CAA CA GAN CA CTG CC CA CON C'	F CTTT C T A TEE CAAGAITTGAA 🗟 CAAG 🗛 CET CITT CTA CTEE TIT OA GAAT CA CAAAG O AA EA GA CAG A CAGA AGO F C
PsWOX3 GgWOX3	CQUG CAA CUA CA CGGUCGAA UCCA ACGCCA BACCAG UUGGU GAUA CUCCAA GZ CQUG CAA CAA CCCGGUCGAA CCCA ACAGCA BACCAC CUGAU GAUUCUCAA GZ	\AUUG UACCGAGGCCECCAUGAGA <u>\</u> CUCCCAGCGCUGAGC <u>A</u> GAUCCAGCAA <u>NU</u> AACUGCUCACCUU	schut G Transon Nacharara Scarac Briten in Chinesen in Santa Calana (Calana Calana) scuuu G Urauceu ara Iagaa Scaracara (Universite Calana) scuuu C Urauceu ara Iagaa Scaracara (Universite Calana)
OsWOX3 GbWOX3B	accortrocaco (CS) filo to (CCS) accord filo to (CCC) accord filo to (CCC	AGANGNACAGGAG CECCGTG CGA <u>-</u> CCCCCCAA CG CGGCAGAGAMC CAG CAAATACA CGGCG CA CON C(A CAUAUAUAGA GGU ECGAUU CA G <u>D</u> A CCUA A CUG CUGUG C <u>AGAU</u> A CAA CAAADU CA CAGCG CA CUUAA	SCUTA C UTA (CCC) C G CAN CRACEG CAACEN CEU CUTCUTE DO COMUNICACEN CACCA CANCEG CEU CARC CO CCAC CACON C ACCUIG UTA UCCA ANA MARACEI CAANA EN UCUICUUN DU COCUU U DA CATA CEI CA DIAGO CAE CACACANCEU C SCUTA C UTA (CCC) ANA AU CAACEI CAANA EN UCUICUU U COCUU CEU CAACACA CACACACACACACACACACACACACACACA
AtWOX4 GbWOX4	TEGT CCCCCCAA CCCCCAACAAAAA CAADA CTACAAAA	PGTRT RACAAA GGA GGA GGAATGCGT R CTCCA AATGCAGA GCACATTGAA CA CAGAA CAGAA CAGAA CAGAA CAGAA	
GgWOX4 PsWOX4 PaWOX4	CCGA SCHCCAA TICCS MCACCA SACCASAN TAG AANCONAGAAAA A CGA SG HCGAA TICCS ACACCA SACCASAN TAG AANCONAGAAAA GCCT CTGCTA CT CGA MCGAA TICCS ACTCCA SACCASAN AAG AAN CONAGAAAA	IGTNITNACAAG GGA EGAATIC GCNCCCCCCAATIC CAGAA CHAAMICCAG CA CHATA CAG CA CAG MG. IGTNITNACAAG GGA EGAATIG CG CNCCCCCCAATIG CAGAA CHAAMICCAG CA CATITA CAG CA CAG MG. IGTNITNACAAG GGA EGAATIG CG CNCCCCCCAATIG CAGAA CHAAMICCAG CA CATITA CAG CA CAG MG.	agcag Tates Jagan Galgo Cargan Thomas Cargan Cargan Cela Agcag Tates Jagan Galgo Cargan Cargan Cargan Cela Agcag Tates Jagan Cargan Cargan Thomas Cargan Cela
PhWOX4 VvWOX4	CCUGGAGGGA CGAGGUGGAA UCCGAC CCAA GAACAGAUAGGAAUA CUUCAAA U	JG CÙG – – – ŬAU CGA GGG <mark>EG</mark> AAUG CG C – – – <u>A</u> CACCCAAUG CA C <u>A</u> AÚC GAA CAAAÙCA CUUUG CAACUA(NGCADA — — UAIGGIAAAN UAGAA GGAAA AN CU GUUCUN CHEVNOU PANANCCA (MAGGICC) GACAGACAGAGAGA SGAAA — — UAIGGIAAAN UAGAA GGAAA AN CU GUUCUN CUGUUU PANANCCA (MAGGICC) GACAGACAGAGAGAGA SGAAAG — — TAIGGIAAGA CAGAH GAA G CAAGAM TENGHTINI TECHNICUNAAN CO (MAGGICC) GACAGACAGAGAGAG
PhMAW VvWOX1	gtggt gagit ca cgt negaa ticca acticca saacaa cut ca aa ccen ceaa ga Atagt gagict ca cgt negaa ticca ac ciccg sagcaas chaag ga ccen acaa ga	AGT TA TATAGA CGT EGGA CAAGA PICTCCIT CTG CTGAA CHAPWIT CAG CA CPUTA CTG CC CAGCTIT	CGA CGT – – – TATEC CAAAAHTGAA EG CAAG MATEL CHTTTE CTECTHT CAAMATCA CAAGGCTA EG GAA CG CCAAMAAAGA
GgWOX2 PaWOX2	TTGAA TCCG ACGAAG GACCAS CTCAG AAHCCTCGAA A A CUAU GAGCA CCA <mark>GAUCGA</mark> A U <mark>CCA AC</mark> GAAA <mark>GA</mark> A AUAGA GUUAU UCCAA G	2 CAUGUA CAGU CAA ECGAU CCG CA CUCCCAGUG C CGAU CAAAUA GAG CA GAU CG C CAGU CGA CUGU	GGAAUGUAU gg aa a cajugaaggaag<u>aa</u>uguguuuua cugguuuua aaaacca uaaagguucecgagagg cagagaga ga
PsWOX2 OsHB3	ACCAU GAGCA CCA <mark>G</mark> GUCCAA UCCAACGAAA GA ACAA AUAGA CUUCCUGCAGG GCGGG GA CGA CGA <mark>G</mark> G <mark>UCCA</mark> A C <mark>CC</mark> GT CGC <mark>C</mark> G <mark>GACCAG</mark> A <u>I</u> AAA GGIIGCTCCAGAI	2CAJGUACAGU CAAEGCAUCCECACCOCCAGUCCCEAUCCCEAUAEACAGAGAUUCCCCAGUCCCCAGUC 15CAGUACCGCCGCEGCATCCGGACCECCAACTCCECCCAUCAECAGUCCACCGAUCACGAGGAGAUCA 15CGCUACCGCCGCEGCATCCGGACCECCAACTCCAUCAACCGAGCGAUCACGAGCACCAUCA	
OsHB3B PhWOX3 PaWOX5	GCGGGGACGACGACGACGACGACACACACACACACACAC	A A DG U A U A GG A A A CCUUUUA A GG NAU GCA A A U G CUA CU CNAAWA CAAAA U A UU A CU G CC CAUU U GU	I CUUGUU AU CC A AAAA JUGAA GGAAAGAA (AAUCUGUUUUAU UCGUUUU CAAAAACCA UAAAG GUA GA GAUAGG CAGAAACUU
PsWUS AtWOX11	GCAAG TGTAT CAC CT INCEAN TOCES ON CAUGE A GINA CAAURA CON A CAURA CON A CAURA CON A CAURA CAUR	AGU A ACAGAAGG SGAALCCGU	aaacst Ta (CCS) aaa ariin gaa gecaac Batene fin tene fin Criceren in Statt ea Crista (Seconda Crisera Cacha Aaacsa Uu (CCS) aaa ai agaa gecaac Batene Uu en Ciu Cui Acuscuu U Satta (Seconda Cachacaca) aacsa Sagaa Uu (CCC) ee Cegui (Seca giu Cea Mau En Ciu Cui Acuscuu) u Satta (Seconda Cachacaca) aacsa (Seconda C
AtWOX12 GbWOX11	GUCCCCGCCACUUCCUCACCUAACCCCAACCAAUCUUCAUACUCCAAU TCCTCCCCCAACCCCAACCCAA	CCAUC	iagaaauu cegu g cu g i g ca Ba cg ca Maa ceu gu cu
OsWOX11C NjWOX11	gt gaggt og cgg negac goeg na goog fagcag ana et can conserve t Casant et tana on conserve	CCANC MTCAACAGC **CCATGGTG MACCOGCCCAAGCACGMCMCCGTCCGCAMCCGCAAGCTGCT CCANC MTCAACAGT **CGATGGTG MACCOCACCAAAGCATGMCMCGGCGTCAGGAMCAGAAAGCTTCTC	GAG CG C − − − TT C <mark>GC</mark> CG CCG M CGG CGA CG CC <mark>AA</mark> C CH CMT CTA CLGGTH CCA G AACC G CCG CT <u>C</u> GCGCT CCCG CCG CCG CCG CGAG GAGAG G − − − TTT GG CT CTG M TGGA GATG CG <mark>AA</mark> C CH CHT CTA T
OsWOX11A VvWOX11	GT G CGGT CG C <mark>G</mark> G RCCA C GCCCAA GCCG GACCAG A HA CT GARCCTCCAG T (GT GACGT CAA <mark>G</mark> G <mark>RCCA</mark> C T <u>CCA</u> A <u>A</u> A GCCT <u>GACCA</u> A A <u>R</u> AAT CARACTTCAGT (CCA∐C——— <u>H</u> ICAACAGC <u>CC</u> CAIGGIC——— <u>A</u> ACICGCCCCAAGCACGAGACCGICCGOAICCGCAAGCIGCUC CCA∐C——— HICAA CAGICGTAIGGIA——— <u>A</u> AICCICCCAAACAIG <u>A</u> AACIGIGAGGAUAAGAAAAITGCUGC	JAGAGG———TTOCCCGCOGNOCGCOGACCCOACCCMACCHOMTOTACHCCHNCOAGMACOGCOGCTOGCOHCTOGCOGCOGCOGCOGCOGCOGCOGCOGCOGCOGCOGCOG JAGCCT———TATCCCTTOTGTTCGGOGATGCAMATCTOCHTOTACHCCGTTCOAAAACAGAAGATOGAGAATCTAGACGTCGCOAG
OsWOX11B AtWOX8 AtWOX9	G CGAGGT GG CGAGGC GAGGG GAGGGG GAGGAGAGAGC GAGAGGGGGGGG	CCATIC TIT CAA CAG CEC CATGGT G TA CCCG G C CAA GCA CGAGACG G C G C G CAT C C G C C C C C C C C C C C C CAA U C TU CCAA U U C C SCU ACUAU U TA CCCG C C U U C C G C TU C G C U U C C G C U U C C G C U U C C C C	CAAGAA — — — UAUGGU CAAAU CGGU CA CG CAAA CGU GUUUUA CUGGUUU CAAAAC CG CAAAU CU CGAG CAAA A CA CAAGCUU
NjWOX9 GbWOX9	a a Arabi (USA Galaka) Shi a Arabi (Na Kabi) a Arabi (Na Kabi) a Arabi (Na Kabi) a Arabi (Na Kabi) (Na Kabi) (Na Sama) (Na Kabi) (Na Kabi)	TARCHTCAACTCTCCAAGGTANATIONACCAAGGCACGNCANAAGGAAGAMCAGAGCCCAGGNG	caagaaUX (CGC CAAGU CGCU BAUG CU MA CBU CUU CU AGU CU MAGU COAAMACO SUMASU MA COCUAA ACACMAA BU C Caaga
VvWOX9 PhSOE) a Aredis ne to marca 20 marca de la casa e a astrona e a casa 20 20 a casa 20 20 a casa 20 20 a casa 20 20 a Da Aredia Camara do Aredia Aredia e a casa e casa e casa e casa e Da Aredia Unida e a casa a casa e c	TTAR C UTCAACT C G G CATGGT GMATCOT C CGAG G GATGACAMA AGGAA GAM CAGAG OT CAATRA 20 A U C UU CAAU U CA G G AAU G G U G MAU COU C CAAG G GAU G MAAU AAGGAA AAU AA A G CAAAA OU U	caagag — — Tittes, caagategg atg controng to the control of the second of the second s
PaWOX8 PhEVG	GAA CCAAAG C CGAGAUGGA A U CCAAAACCA GAACAG CU CCG G AU CU U AGAAU (GAG CCAAAG CAAA <mark>G</mark> A UGGA A C <mark>CCUA</mark> G G <mark>CCA GAGCA</mark> AA U A CG C AUACU UGAAG (CCGUA — — UUCAAU U CU GE CAUGGU G — — A COOU CCAAG AGAUG AAUAAAAA A AA AG AAU CA GAG CU CAG CU A CUAU C — — UUCAAU U CA COAAUGGU G — — FIAUOOU CCAAG AGAUG FICAWA AGAAA AFU CA GAAU CAAA CUG (CAAGAG — — — UUU CC A CAGGUUGGG BA CG CC MA UGU CUU CUAU <mark>UCCCUU COMGEN</mark> CAGAMAGUE CA BA A CCAA GCAA AGCOAA CAAGAA — — — UUUCCC CAAGUUGGA MAUG CCMUUUU CUUUUUM CUCCUU COMARA CAG GENAAU (AA CA AG CAA ACACNAGOAA
GgWOX9A GgWOX9B	CCGRECTATCCAGCCGCCGCCCCCAARCCAARCCAARCCCGAARCCCCCAACCCCAGC RCCTCCCCCGACCCCGCCCGCAACCCCAARCCCAARCCCCACCCCCCCC	NTTRGRTCAACTCASCAATGGTGRATCCGTCTCGGCATGACAACAGAGCAATCAAGAATCGCCAG NTTRGRTCAACTCASCAATGGTGRATCCGTCTCGGCATGACAACAGAGCAACAAGAATCGCCAG	cta c c g — — Tateg ca a cg ligege j a cg ca m cer chi ctecta ctecta c aca c
PaWOX8A PsWOX9 PaWOX8	GGA C CAAAG C CA CE GICEANA TOCA NA ACCA CACCACAGA TI CGAMIC GAUTT A GOA A CGICEANA COCACACACAGA CACCACAGA CACAGA A A COACAGA CACAGA CA	AGA 🖬 A — — — III CAAAT II CII SICII CAGGIIG — — — 🗛 CICCIIAAA CG A GAGG GAANT AAAAA AAII CA CCACII CAG CIIG 🕯	CAAGAGTIT CEGA GAGGETTGGGE AGG COMMITET CETTE CONCERNIT CONCERNITAGAMENTE CAENA A COMA A COMA A COMA A SOGA CAAGAATIT CEGA CAICE ETGGGE AGG COMMINE OF TOTE CONCERNITIONAL A DEBE CE CAENA A COMA A SOGA A SOGA A SOGA A SON ATIT CEGA CAICE ETGGGE AGG COMMINE OF TOTE CONCERNITIONAL A DEBE CE CAENA A COMA A SOGA A SOGA A SOGA
PaWOXB CrWOXA AtWOX6	A A A C A A CT C A A GALICO C A TOGA NA A COA STACEASIAU CCA CTUCOEU COA C A C A C U COU COA A GALICORIC COCS NOU C A GALOXABI C C A CTUCOEU COA U C C C G C G A C U U G A GALOCORIC COCS NOU C A C C C C U A C A G C C G C G A C U U G A GALOCORIC D C C C C MACA C	CGAUCUUCAACUCASCAACCACUACCCCUUCCCGUGACAUGAUCGUCGACAUCG CGGCGCGCGCAGCUC	saacaa — — — Tro (CG) Caacair (CG) Bartor (Cartenic) Coroning (Coroning) Carteria and Sage (Cabro (Caara) (CC) A Agaaa — — — Ua (CG) Caacair (CG) Caira (CG) Cairair (CG) Caira (CG) Caacair (CG) Caacair (CC) Aaa (CC) Caacair Cuara — — — Uau(CG) Acaair (Caabg (Caacair (CG) Uiu) (CU) (UC) Uiu (UC) (Uiu) (Caarair (Caara) (Caabair (Caaba
GbWUS PaWUS	CAGAG CGGUA CCCCAUCCAA CCCAACCACCAA CUCAGUAUA OUGAG CGA	AAUUGUAUUA CAGA AAU CCAAUU CCU	AG C C G U U AU C C G A A G A U A G AG C G A A A G A A UC U G U U C U A C UCCU U C CA A A AU C A U A A G G O C A C A G A G A G A G A G A A A A A
VvWOX6 AtWOX5	TT CGG GAG CT CAACG HCCAA TCCAACACCA CACCAC CACCAC CACCACCACCACCACC	ag chig — — Hat cga cga beana cg cga — — — Acalee chictig ct cha chiannic cha chiannic ctig ca cha chictig ca cha chi Au chig — — Huu cga g cceelu chuaga — — — Aculee an caa cuchu chichnu chigan gru cu cua cg chicig chicig chici	agt cg t Tatge Saaaan cgag gaaaan ta chi chi the thit teen hora baacaa tatage cea aa aga cacaa aa cacaa aa Cst ct g Tit (Ge Caacaa) caa gcaacaa a tatge Thit che chi tea aa caacaa caacaa caacaa aa caacaa aa caacaa
AtWOX7 VvWOX5	GCGAA GUGUG GA C <mark>GCUCCA</mark> A UCCA ACGGUG <mark>CACCA</mark> A GUGAA GCUUCUGA CA G <i>A</i> A CCAA GTGIIG GG CGI NCCAA TCCG ACTACT SA A CAGGIITAA AGNI CTGA CI G <i>X</i>	au Cug Uucaag g cg 30a cug cga <u>Pace</u> g ag ca cg <u>ga</u> cc <mark>acau</mark> u cagaa gau cu cuaug gag oug <i>i</i> at cug II tcagg t ct 36a ct ccga <u>A</u> cg cg cg ca ct <u>ga</u> ca <mark>cagu</mark> t cagaa gat ct cat cc cag ot g <i>i</i>	AGUUUCUACCCCAAGAUAGAGAGCAAGADUBUUUUUUUUUUUUUUUUUUUUUUUAGAADAGCUABAGGUABGAGGCAGAAAGSU AGUUUCUACCCUAAGAUGAGAGCAAAGACCAAGAACUAC AGCTTTTACCCCAAGUGGAGACAAAAGCOCCAAGAGCUAUGCUUCUCUUCCUUCCUAUACUCAAAAGCUABAGGCASAAGACAAAAAGUGC AGCTG CTACCCCCAAGUGGAGACAAAAGATBUCUTTTTDGCGTUCGAAAACCAAAAAGGCASAGAGCACAAAAGGG AGCTG CTACCCCCAAGUGGAGAGAAGAATBUCUTCTACCGTUTTTDGCAACCAAAAGCAAAAGGCASAAGGGCAGAAGAGGGC
NjWOX5 PhTER	CAAAA UAGUA CAAGUCGA CACCAA CUAA CUAAG AWAAG AAWAU WAAMG GA	AU CUUUA CUA CAA CAAU EEJAGUUAG G U CU OQAA CUG CUGAA CAAAUU CAGAG GAU CU CUG CUAAGUUAA	AGA CAG — — — UA CECA AAGAUUGAA EG CAAGAAUEUGUUUUAUUCEUUUUAAGAACCA UAAAGO CCEUGAAAGA CAAAAGAAAA
VvWUS NjWUS AtWOX10	CAAAG CAGTA CACGCURCCACTOCACTOCACTOCACTOCACTOCACTOCACTOCAC	ACCHITTA CHACAACAAT BEAGHTAGG	age a g eneral (CC) an an Caabie Craebr Craebr Craebr Craebr Craebr Craebra Coabra Coabr Craebra Age a sa an a Age a general a sa an a sa a sa a sa a sa a sa a sa
AtWOX13 GbWOX13			
OsWOX13 VvWOX13A	ACAG CAACG CAG CCA HECACACCAACCCCAA TCCAG THG CAGAHTCTTCAG A AGTAG CAGG CAG CCG HECACTCCCACG CCT TCCAG CHT CAAAHTCTTCAG CO	A CAR C MITTGA C CAA SE CAATGEA MCACEAAG CAAG CAAA MCAWAAAGGA CAMAA CAG CAGAG CH C' SAAR C MITTGAT CAA SE CAATGEG MCTCEAAG CAAG CAGAACAWT AAAGA CAMAA C CA CT GAA CH G	sct cag catege i caganitt ct baaaca na centre da ca nicteen niceatra catego da constanta constanta constant I ca cag catege caganitt ct baaaca na tribunatione catego da constanta catego da constanta constanta consta I ca ca a catege caganitt ct baaaca na constanta catego niceatra casa constanta catego da constanta catego
PsWOX13 VvWOX13C	CAG CEG GEEA CGIOOGAG CEAG ETECAA CITT CA GAIITION TEAGAA	A GARA RITTGAT CAG CA TAAGGGA RICCIOOA AGTAA GOMAA RIGMAA AAAGA GARTA CAGCT GAGORTI	AGT CA A —————————————————————————————————
VvWOX13B PpWOX01 PpWOX02	ACTG C CAGA CAG CEGUREGACACCOGACACCAGTGCAG CUT CA AANTONTGAG CC ACAG CAAGA CAG CEGUEGAC COCCAG CCAA CAU CAG CUT CA AANU U UAGAAA ACAG CAAGA CAG CEGUREGACACCAG CCAA CAU CAG CUT CAAANU U UAGAAA	TTANTINTTOAT CAA SEGATATGE CINCTEORAAG CAGA GOAGAMCAMAGA ORIVAA CCT CTGATTIG. GGUUGINUCAG CAA SE CAGUGE CNCACECCAA CAA CAG CG CANNA AAGA CRUNA CUG COGAA ON C NUMBERINUCAG CAA SE CAGUGE	АСССА С САЛСЕС - САЛАЛИТТСТЕЛА АСА ВАТЕЛИСТВАТА В ПОССИЛСЯМ СТАТАСССТВЕЛСАЛ САЛА АСАЛАССВА АСССА С САЛСЕС С АЛИТТСТЕЛА АСА ВАТЕЛИСТВАТА В ПОССИЛСЯМ СТАТА АССТВЕЛСАЛА САЛА АССЛАССВА АССЛА С САЛСЕС С АЛИТТСТЕЛА АСА ВАТЕЛИТА В ПОССИЛСЯМ СТАТА ДО ССЛЕБАСАТА АССЛАВАСЕТА АСИСА С САЛСЕС С САЛИТСТЕЛА АССЛАТИСТВАТА ПОССИЛСЯМ СТАТА ОС СЛЕБАСАТА ССЛЕБАСАТА АССЛАВАСЕТАСА АСИСА С САЛСЕС С САЛИТСТЕЛА АССЛАТИТСЯ В СИЛСИИ С И СТАТА ОС СЛЕБАСАТА ССЛЕБАСАТА САЛА АССЛАВАСЕТАС
CrWOX02 CrWOX13A GgWOX13	AAUGG G CGU CAG CGAUCGA CACCCAG CCAAU CU CAG CU CCA AAUU CUUGA G A	GUGUAUUUGAGA CUARUGUUGG CR CGCCUAG CAAA CAGARAAUUAAGGA GAUAA CCAUG GAA CUG	AGU CAGCAUGEU IG CUAUI CU CGEAGACCATA CEUGUA CA MCUEGU UCCEAAFACCCG CATA SGEUCEA G CCAA AAGAMAAGA G SGGAAGCAUGEU ICCAUU U CABACACCATA CEUADA CA MUUGGU UCCAAACAG CATASGEACES G CCAA GCGGAGGAA SUCTAGCAUGEO ICCCAUTU CABA SUCTATA CUM DA MUUGGU UCCAAACAG CATASGEACES G CCAA GCGGAGGAA
SmWOX8 PaWOX13	T CTG CTAGA CAG CG C TCGA CG CCA AG T CAGA CT CAG C TT CA AA HAT TG GA AAG	STTTA – – – TTTGAG CAAGC CCATG C C – – – A CACCAAGTAAG OAGAAATAAAGGAAATAA CAATG GAACTT	ast ca g cangge 1 cright tra Baarcorn of the Chaor Rouge Uucer Chaor San Son Chaor Chaor Chaor Chaor Chaor Ag c ca g cange 1 ca ca g a cange Com Con Con Cua ca Rouge Uucer Chaor Ca Ana Gauge Ag Ca Ana Gage Bage Aa Set ca g cange 1 ca Anu Crict Back com the the transmission for the transmission of the transmission of the
CrWOX13B AtWOX14	a Cau ca cgg caa cga uccaca cacag c caaa ca cacag cuu ca gaua cuacag aa u cga cua cg cau cgg uccacag g cuu caa ca cacag cuu ca gaua cuu caga c	ag c u u — — Juc caa caa ce aaaug ga — — - G cu <mark>ce</mark> aag cag g c <u>a</u> ga ga <u>au</u> a aaaga gataau gug cu gaau jg; 5 cauu — — Juac ga cgaa xe aagug ga — — - Ncaloog aau cga cgga gawu agaga gawc g gag cug i	AG CCA G UAU <mark>CC</mark> U CAGA UAU CA BAAA CA <mark>MA</mark> UGU GUAUA MU <mark>UCCUU COMAM</mark> AU OG G CGGGO UA BAA CAAA AAGGMAA @AA J CUGA A CAUCCA CAGA UCA CGMAGA CA MUUCUU QUA CA MUUCCUUU OMAMACOG G CGAGOU OC G U CCAA A OGAMAGOA G
SmWOX7 OIWOX	ACCACUCGCCAGAGGUCGGCGCCAGCCGGCCCAGGUCAAGUCOUCGAGAC CGAGGACCGA <mark>G</mark> AUCGAGUGGAACGCCGGAUCAGUACAAGAUUUUCGAGZ	5 CCUC ———UACGACGUU EGAAUGGGG———ICCCCCA CA CAAG CAG CGAGUG CGAGAGAULA CGGCGGAGGUC Auuug ———Uucuug 6 CGECGAG CAA——— CCCCCCCGUG CGAGCAUUG A CGGAGAUUA CGAAG CGGUG	AGCCAGCUU CG G CCGGUGAACGAGUCC <mark>AACGUUUA CARCUCGUUCCAGAACG</mark> G AAAGGG CAGGACGAGGAGGAGGAGGAGGAGAGAU CAAGAACAC <mark>GG</mark> G CCCAUU CAAGAACAC <mark>AA</mark> CGUGUACAMUU <mark>GGUUUCAAAACC</mark> GACGAGGAGAGAGAAAAAAAAGGUUG
OtWOX PpWOX03 OsWOX5	CCUACCCGAUCACGAUCGAGUGCUAAUCAGCAGCUGCAAAACCUUAGAGAG	GUA 🛛 C – – – 🔲 U CGAG CAG 🗃 AAUGGAAA CA CU CCCAA CAA AG CUA GGAU U AAAGA CAUAA CCAUA GAA CU U	NAG CAACA CECF CCGG MI CAA BAGT CCAA CENGMA CA MI TICEMMI COMAMATA CABGA GI CECGAA MA GAAGT TA GAA NA CCAGUUUCEG J CA CAUCU CA BAAA CA MAU BUIGMA CA MOUCOU ON CARACO A UMANA GA CAA GO CAA A GO CAA MA GO A C NA CCAA
GbWOX3A OsWUS	CCUG CGACCA CUCS LCCA CCCS ACCCCA CUUGAU GCACUCCA GZ CCUG CGACCA CUCS CCCA ACCCCA ACCACUUGAU GCA CUCCA GZ CCGAC CGCA GA SINCE CCCCA ACGACCA ACA CAUCA CAUCA CAUCA CAUCA C	AUGUE	accca — — Trogg Carginger Cracker Cracker Cracker Cracker Construction Cracker Cracker Construction Agoud — — Uraucea Argen Agan Borager Construction Construction Construction Construction Construction Socca — — Tracego Construction Construction Construction Construction Construction Construction Construction Con
SmWOX6 AtWUS	CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC		
GgWUS CrWUL	AA CAG CGGCG CA CCUUCCAA UCCG ACCCCG CAGCAG CUGAG CAUU CUGAA GZ CCUAG AGGAA CG C <mark>GAUCCA</mark> C UCCG ACGA CG CAGCAA CUU CG GGAA CUU CU CAZ	AGCUGUAU CAUGG C CGCEGAAU CAGGU CGCCCAG CG C CGAA CAGAUC CA C CAUAUU CU CAUGG AAA GU C A CAUUUAU CAUAU CGGAEG CAUCCG CNCCCCCA CGA CAG CGCAAUA AG CAG CAUUA CUGCU CGGU G	AGA CA G UU COGA A AGA UU GA C G CAAGIN COU CUU UU CUCOUU COCA CHACCA UAR SOCUEU GAG COU CAGAAGAAG AG CU C UU COG CAAAAU CAAG G CAAGIN COU CUU CUI CUGOUU COACHACCA UAR SOGUEG COG CAGAGAAGAA CC CA U UU COG CAAGUU GA C G C CCAU UU UU UU UU CUI CUGOUU COACHACCA UAR SOGUEG COG CAGAGAAA CAAG CG CC U CA COG U CGAUU GA C G C COG CAU UU UU UU UU CUI CUGOUU COACHACCA UAR SOGUEG COG CAGAGAAA CAAG CG CC U CA COG U CGAUU GA C G C CAGUU GUU CUI CUI CUI CUCOU COACHACCA UAR SOGUEG COACAAGAAA CAAG S
CaWUL CrWOXB	CCUGCCGGAACGACGAUGCAGCICCGAACGAACGAACGAGCUGCGGAGGUGCGGAAA ACCCCGAGAACGACGUCCGCCCUACUCCAGAACAAUCAAU	LA CUGUUCCACCACAGAGGCCCCUCACAACCCCCCACAACCCCCACAACCCCCCCACACCCCCC	ZGGCU ———CĂ(CCG)ICGCĂŬ(CACC)GCĂGCĂGCĂŬCUUCULĂULCCUICOMACĂACCAAAMAGOUCC)CACAĂGCAGCAĂGCĂGCAĂGCĂGCĂ AAUCAG ———UUCCCCAGCĂULCUAĂAAGCULĂICULUUCULĂULCCUICOMACĂĂCCAGCĂĂĂGCGCUCCCAĂAAGAGAĂGCOU A SCCAUGAUCĂUCCCCGGICUCULĂACUCOMACĂŬUCUACUUCUUCCUICOMACĂAAGCĂACĂGCĂGCĂGCĂGCĂGCĂGCĂGCĂGCĂGCĂGCĂGCĂGCĂGC
SmWOX1 SmWOX4 SmWOX5	CCCGCGCGCGCGCGAUCCCGGCCAAAUGAGCAACAGCUCGCCAUCOUCCAAGA	AUUUIC ————UA CAAG CAA ECGACG——————————————————————————————————	ar CCA UGAU CAUGEC C CCG SUCU CU BACU COMA SU CUA CUU QUEGUU (CANOMACAA CANA SU CUCCACAGA CCG CARGE C AGA CA C — — – C C CCG C C C CG C CGA A CUU AA CMA SU UBA CU CUU CUU SU CUU AA CMA SA C CCECCA CAA CCG CARGE C S C C A C — — – C M CCG C C C C G U CU CUA CUU CUU CUU CUU CUU CUU CUU CU
SmWOX3 SmWOX3 SmWOX9	GG CGU G CAG CAA C GAUCG SA GCGA AA CAG CUACCAA GUG CA AAU CUUCGAG GA GU CGU CAA CAA C GAUCG SA GCGA AA CAG CUACCAA GUG CA AAU CUUCGAG GA GU CGU CAAAG UU C GAUCGA A ACCGA A CGAG GACCA G CUCCG GAUGGUCCU C CC	AGUUC	SCC4ZAGCGLCGGCGACGAACGACUCINAACUGUCUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
SmWOX2	AU CGU CCGU CAG CCAUCCGA GOCA MA CAG COM CONCINC CAANUCUUCOM GGA	AGUUUUACCOGAACUCGACGCCCCCCAAUCGCCACAGG	SGUCGCUACCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

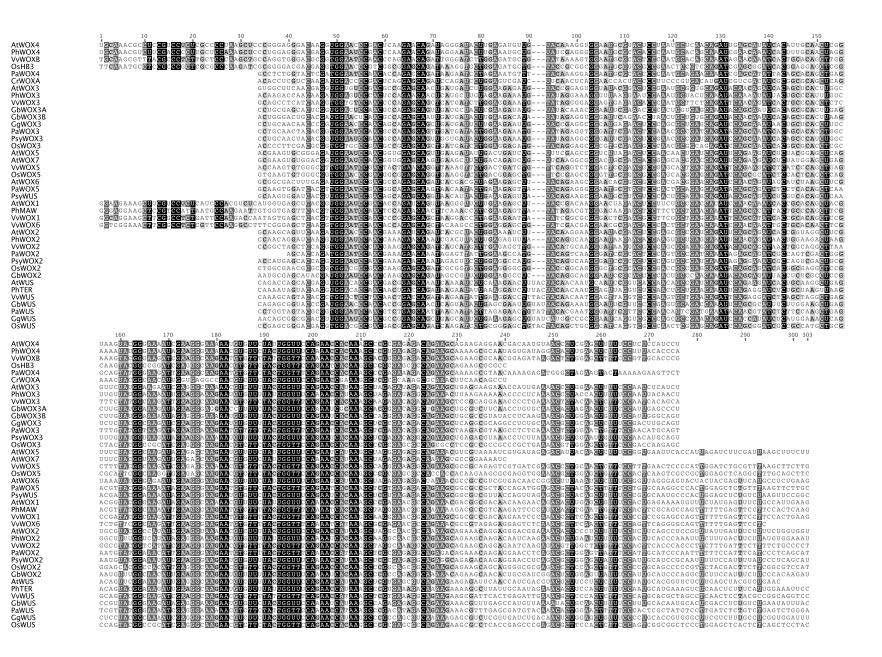
Nucleotide aligment used for the construction of the full WOX gene tree.

	1 10 20	30	40	50 60 68
Identity	<u> </u>	┑ <mark>╴╴</mark> ┫╺┓╶┛ <mark>╵╴╸╸</mark> ┓	ي المحالم	<mark>·▋</mark> ····· <mark>·</mark> ···························
AtWOX1				YGK I EGKN <mark>V</mark> FYWFQNHKARERQKR
PhMAW VvWOX1				<mark>YGK I EG</mark> KN <mark>V</mark> FYWFQN <mark>H</mark> KAR ERQKR YGK I EGKN <mark>V</mark> FYWFQN <mark>H</mark> KAR ERQKR
VvWOX6	FGSSRW <mark>N</mark> PTPEQLQALEEL-	KRR <mark>G</mark> TR – TPTA <mark>E</mark> QIÇ	QIAAQLRL-	FGKIEGKN <mark>V</mark> FYWFQN <mark>H</mark> KAR <mark>E</mark> RQKR
PaWOX5				<mark>YG</mark> K I EGKN <mark>V F YW F QN H</mark> KARER QKR YGK I EGKN V F YW F ON HKARER OKR
PsWUS AtWOX6				YGRIEGEN VFIWFON HEAREROER YGRIEGEN VFIWFON HEARERLER
AtWOX3	VASTRWCPTPEQLMILEEM-	YRSGIR – TP <mark>N</mark> A <mark>V</mark> QIQ	QITAHLAF-	YGRIEGKN <mark>V</mark> FYWFQN <mark>H</mark> KARDRQK <mark>L</mark>
VvWOX3 OsWOX3				<mark>YG</mark> K I EGKN <mark>V F YW F QN H</mark> KAR DR QK L YGR I EGKN <mark>V F YW F QN H</mark> KAR ER QR L
PaWOX3	PATTRWNPTPEQLMILEEM-	<mark>KRGGIR – TPNADQI</mark> Q	QITAHLAL-	YGK I EGKN <mark>V</mark> FYWFQNHKARDRQKL
PsWOX3				YGKIEGKN <mark>V</mark> FYWFQNHKARDRQKL
GgWOX3 GbWOX3B	TG TARWN S TPEOLMILEDI - Y	RGGMR - TPSALQIQ RGGIO-NLTAVOIC	OITAHLSL-	<mark>YG</mark> K I EG KN V FYW FQN HKAR DRQK L YGK I EGKN V FYW FQN HKAR DRQK L
PhWOX3	TRPTRWSPTPEOIMILLEEM-	RKGLR - NPNATOTO	NT TAHLSC-	YGKTEGKNVFYWFONHKARDROKT.
AtWOX4 PhWOX4	PGGTRWNPTQEQIGILEML-	KGGMR - TPNAQQIE KRGGMR - TPNAQQIE	HITLQLGK-	YGKIEGKNVFYWFQNHKARERQKQ YGKIEGKNVFYWFQNHKARERQKQ
VvWOX4				Y <mark>G</mark> KI E GKN <mark>V</mark> FYWFQNHKARERQKQ
GgWOX4	PRWNPTPDQIRILEMF- TRWNPTPDQIRILEMF-	KGGMR - TPNAEQIE	HITAQLRQ-	YGKIEGKNVFYWFQ
PsWOX4 PaWOX4				Y <mark>G</mark> KI E GKN V FIWFQ YGKIEGKNVFIWFQNHKARERQKQ
OsHB3	AGTTRWNPSA <mark>EQIKVLEML</mark> -	YRGGMR – TPNSVQIE	RITEELGK-	Y G R I E G K N <mark>V</mark> F Y W F Q N H K A R <mark>E</mark> R Q K Q
OsHB3B GbWOX4	AGTTRWNPSAEQIKVLEML- WSPKPFOTTTLEME-	KCGMR - TPNSVQIE	RITEELGK-	<mark>YG</mark> R I EG KN <mark>V</mark> FYW FQN <mark>H</mark> KAR ERQKQ YGK I EG KN <mark>V</mark> FYW FQN <mark>H</mark> K
GbWOX3A				YGKIEGRNLFYWFQNRKARDRLKL
AtWOX2				YGHIEGKNV FYWFQNHKARQRQKQ
VvWOX2 PhWOX2	PTGSRWNPTKEQISMLESL-	ROGIR - TPSAEQIC	QITGREKA-	<mark>YGHIEG</mark> KN <mark>V</mark> FYWFQN <mark>H</mark> KARQRQKQ F <mark>GHIEG</mark> KN <mark>V</mark> FYWFQN <mark>H</mark> KARQRQKQ
OsWOX2	MANARWTPTK <mark>E</mark> QIA <mark>VLEGL</mark> -`	Y R Q <mark>G L</mark> R – T P T A <mark>E</mark> Q I Q	QITAR LRE-	HG H I EG K N V F YW F QN H K A R QR QK Q
GbWOX2 PaWOX2				F <mark>GN I EG</mark> KN <mark>V</mark> FYW FQN <mark>H</mark> KAR QR QK Q <mark>YGN I EG</mark> KN <mark>V</mark> FYW FQN <mark>H</mark> KAR <mark>E</mark> R QR Q
PawOX2 PsWOX2	TMSTRWNPTKEQIDFLEAM-	YSQGIR – TPSADQI <mark>E</mark>	EIASRLRM-	YG <mark>N I EG</mark> K <mark>N V</mark> FYWFQN <mark>H</mark> KAR <mark>E</mark> RQRQ
AtWOX5				YGKIESKNV FYWFQNHKARERQKR
VvWOX5 AtWOX7				<mark>YG</mark> K I ESKN <mark>V</mark> F YWF QN <mark>H</mark> KARER QKR YGK I ESKN VF YWF QN HKARER QK C
NjWOX5	V K CGRWN PTVEQVKVLTDL - 1	FKA <mark>GL</mark> R – TPSA <mark>E</mark> QIÇ	R I S S Q L S C -	Y G K I <mark>E</mark> SKN <mark>V</mark> FYWFQN <mark>H</mark> KAR <mark>E</mark> RQKR
OsWOX5 GbWUS				F <mark>G</mark> K <mark>VE</mark> SKN <mark>V</mark> FYWFQN <mark>H</mark> KAR <mark>E</mark> RKKR YGKI EG KN <mark>V</mark> FYWFQN <mark>H</mark> KARERQKK
GgWUS	N S G A R W N P T P E Q L S I L K E L Y I	HGRGIR – SPSA <mark>EQI</mark> H	HISWKLSS-	Y G K I E G K N <mark>V</mark> F Y W F Q N <mark>H</mark> K A R Q R Q K <mark>E</mark>
PaWUS				YGKIEGKNVFYWFQNHKARHRQKK
PhTER VvWUS				<mark>YG</mark> K I EG KN <mark>V</mark> F YW F QN <mark>H</mark> KAR ER QKK <mark>YG</mark> K I EG KN <mark>V</mark> F YW F QN <mark>H</mark> KAR ER QKK
NjWUS	QSSTRWIPTAEQIRILRELY	Y <mark>NNGV</mark> R – SPSA <mark>E</mark> QIÇ	KISAR LRQ-	YGKIEGKNVFYWFQNHKARERQKK
AtWUS OsWUS				F <mark>G</mark> K I EG KN <mark>V</mark> F YW F QN <mark>H</mark> KAR ER QKK YGR I EGKN <mark>V</mark> F YW F QN <mark>H</mark> KAR ER QKK
NjWOX2	QITLLEGL-	YKQ <mark>GIR – TPSA<mark>E</mark>QIQ</mark>	QITSR <mark>L</mark> R <mark>V</mark> -	YGHIEGKNVFY
NjWOX3		RAGIR - TPKASQIQ	QITAHLSF-	<mark>YG</mark> KI <mark>EG</mark> KN <mark>VFY</mark> <mark>YG</mark> RI <mark>EGRN<mark>VFYWFQD</mark>QKAR<mark>E</mark>RKRR</mark>
CrWUL CaWUL				HGRIEGRNVFIWFODORARERRRR HGRIEGRNVFIWFODORARERRRR
GgWOX2	MNPTKEQLRILENV-	Y <mark>NGGNK – SP</mark> RT <mark>E</mark> QIÇ	HITAELRR-	HGNVAGINV FYWFQ
AtWOX11 OsWOX11C	VRSRWSPRPEQILILESI- VRSRWTPRPEOILILESI-	FHSGMV – NPPKEETV FNSGMV – NPPKDETV	RIRKMLEK-	F <mark>G A V G D A N V F Y W F Q N R R S R S R R R Q</mark> F <mark>G A V G D A N V F Y W F Q N R R S R S R R R Q</mark>
OsWOX11A	VRSRWTPKPEQILILESI-1	F <mark>NSGMV – NPPKDE</mark> T <mark>V</mark>	RIRKLLER-	F G A <mark>V G D</mark> A <mark>N V</mark> F Y W F Q N R R S R S R R R Q
VvWOX11 AtWOX12				<mark>Y G S V G D A N V F Y W F O N R R S R S R R R O</mark> F <mark>G A V G D A N V F Y W F O N R R S R S R R R H</mark>
OsWOX11B	ARSRWAPKPEQILILESI-1	F <mark>NSGMV</mark> – <mark>NP</mark> AK DE TA	RIRRLLER-	FGA <mark>V</mark> RDANVFYWFQNRRSRSRRRA
GbWOX11	WSPKPEQILILESI-			
NjWOX11 AtWOX8		FNSGM <mark>V</mark> – <mark>N PP</mark> KDETV FNSGTI – N PPREEIQ		YGQIGDANVF1 YGQIGDANVF1
AtWOX9				YGQ <mark>V</mark> GDAN <mark>V</mark> FYWFQNRKSRSK <mark>H</mark> KL
VvWOX9 PhSOE	EPK PRWN PR PEQIRILEAI - I EPK PRWN PR PEOIRILEAI - I	YNSGMV - NPPRDEIR FNSGMV - NPPRDEIR	KIRAQLQE-	F <mark>G Q V G D</mark> AN <mark>V F YW F QN R K S R S K H</mark> K Q YG Q V G DAN V F YW F QN R K S R S K HK Q
PhEVG	EPKQRWNPRPEQIRILEAI-1	FNSGM <mark>V</mark> – <mark>NPPR DEI</mark> R	KIRIK <mark>LQE</mark> -	F G Q V G D A N V F Y W F Q N R K S R S K H K Q
PaWOX8 PaWOX8A				F <mark>G Q V G D A N V</mark> F Y W F Q N R K S R T K Q R Q F <mark>G E V G E A N V</mark> F Y W F Q N R K S R T K Q R Q
GbWOX9	PKPRWNPKP?QIRILEAI-I	FNSGMV – NPPRDEIR	RIRTQLQE-	F G Q V G D A N V F Y W F Q
NjWOX9 PaWOX8B		FNSGMV - NPPRDEIR		<mark>Y G Q V G D</mark> A N <mark>V F Y</mark> F G Q V G D V N V F Y W F Q N R K A R S K R K Q
GgWOX9A	RWN PR PEQIRILEDL - 1			
GgWOX9B	WSPKPEQIRILEDL-1	FNSGMV – NPSRDEIK	RIKNRLLP-	YGNVGDANVFYWFQNH
PsWOX9 CrWOXA	RWNPKPEQVQILEEI-1 TPRPRWTPTQEQIQILESI-1	TNSGUV – NPKREGIK TNSGTT – TPSRDMTV	DIAAOLRN-	FG DVG EANIFYWFQ YGNIGEAN <mark>V</mark> FYWFQNRKARAKRK <mark>L</mark>
CrWOXB	TPRTRWCPTPEQINVLETL-1	F <mark>NSGTT – TPTRAMIV</mark>	DIASCLNQ-	F <mark>GSIVE</mark> AN <mark>V</mark> FYWFQNRKARAKRK <mark>L</mark>
AtWOX10 AtWOX14				<mark>HG Q I ME</mark> KN <mark>V YH</mark> WF QNRRARSKRK Q HG Q I TETNVYNWF QNRRARSKRK Q
AtWOX13	TARQRWTPTPVQLQILERI-1	F <mark>DQGTG – TPSKQKI</mark> K	DITEELSQ-	HG QIA <mark>E</mark> QN <mark>V</mark> YNWF QNRRARSKRK Q
OsWOX13 VvWOX13A				HGQISETN <mark>V</mark> YNWFQNRRARSKRKQ HGQISETN <mark>V</mark> YNWFQNRRARSKRKQ
VVWOX13C	SARQRWTPTPVQLQILERI-1	FDQGYG – TPSKQKIK	EITSDLSQ-	HGQISETNVYNWFQNRRAQSKRKQ
VvWOX13B				HGQIS <mark>ETNV</mark> YNWFQNRRARSKRKQ
PpWOX01 PpWOX02				<u>HGA I S E TN <mark>V</mark> YN W F ON R KARAKRK O</u> HGA I S E TN <mark>V</mark> YN W F ON R KARAKRK O
SmWOX8	TSRQRWTPSQNQLRILERL-1	FK Q <mark>G N G</mark> – T <mark>P N</mark> R Q R I K	EITSELSQ-	HGQIS <mark>E</mark> TN <mark>V</mark> YNWFQNRKARAKRKQ
CrWOX13B PaWOX13				<mark>YG Q I S E TN <mark>V</mark> YN W F QN R R A R TK R K Q HG Q I S E TN <mark>V</mark> YN W F QN R K A R A K R K Q</mark>
CrWOX13A	NGRQRWTPSQSQLQILESV-1	F <mark>E</mark> TS <mark>VG</mark> – TPSKQKIK	EITMELGK-	HG P I S E T N V Y N W F Q N R K A R A K R K Q
GbWOX13 PsyWOX13	TPMQLQILENI-1 QRGTPSQ <mark>V</mark> QLQILEKI-1	F <mark>E</mark> QG <mark>NG</mark> – TPSKQKIK FDODKG – TPSKOKIK	EITAELAQ-	HGQISETNVYNWF HGHISETNVYNW
GgWOX13	QRWTPSQSQIDILDRV-	Y <mark>E</mark> AS <mark>NG – NPN</mark> KQKIK	DITAELSQ-	HGP <mark>V</mark> S E T <mark>NV</mark> YNW
SmWOX7	TTRQRWAPSQAQ <mark>V</mark> KLLESL-	Y DVGMG – TPHKQRVR	EI TAELS Q-	LG P V N E S N V Y N W F Q N R K A R T R R R N
PpWOX03 SmWOX9				F <mark>GHISETNVYNWF</mark> QNRKARAKRK <mark>L</mark> Q <mark>GDVTEANVH</mark> NWF <mark>H</mark> NRKARAKRKQ
SmWOX6	R PRWK PTP <mark>V</mark> QISILEYI - 1	F <mark>EN</mark> SDL-LPGDKD <mark>I</mark> T	IITDGLRL-	YG P <mark>V E E V</mark> N <mark>V</mark> F YW F QN R R A R A K R TA
OIWOX OtWOX				HG P I Q E H N V Y N W F Q N R R S R E K K R L HG P V Q E S N V Y N W F Q N R R S R E K K L Q
SmWOX1	PPHERWLPNREQLAVLEDL-	YSKGT – – <mark>MPSQ<mark>E</mark>NI</mark> A	EIVDLVDHD	HG P V S E S K V Y F W F Q N K K A R E R R Q R
SmWOX4 SmWOX5				R <mark>G P A E L</mark> N K <mark>V Y S W F Q N K K S R D</mark> K R K R HG P V D E S K V Y Y W F Q N K K S R E K R K R
SmWOX3	GVQQRWEPNSYQLQILEEF-	YAKAT – – <mark>PPSP<mark>E</mark>NI</mark> A	NIAELV	– G Q <mark>V D H</mark> S K <mark>V</mark> Y Y W F S N K K S R <mark>E</mark> K R K R
SmWOX2	IVRQRWEPNSDQLQILEEF-	YA <mark>N</mark> ST <mark>PPSP<mark>E</mark></mark>	- ITDLVGR-	YGAVDHSNVYYWFTNKNSR <mark>E</mark> KRKR

Amino acid alignment used for the construction of the full WOX gene tree.

	1 10 20 30 40	50 60 70 80	90 100 110	120 130 140 150	160 170 180 190
VvWOX9	A A G COGAGA TGGA A T <mark>CCAAA</mark> A COG CA GCA AAT A CG CATA CTT GAAG	TATETTCAACTCGGGCATGGTGAATCCTCCGAGGGAT	IGAGATAAGGAAGATCAGAGCTCAATTACAGGAGT	TCGGTCAAGTCGGCGACGCCAACGTCTTTTACTC	GTTT CAGAAC AGAAAATCAAGAAGCAAACAAAACA
VvWOX11 AtWOX11	A G G T A AGG TGGA C TC C A AA GCC T GAGCA AA TA A T CATA C TT GAGT C G G U C C GAUGGU C ACC U AA ACC G GAA CA AAU A CU CAU A CU U GAGU				GTTCCAAAACAGAAGATCGAGATCTAGACGTCGGCA
AtWOX11 AtWOX12	C G G G C A C G U U G G U C A C C U A A C C G G A C A A A U C U U G A U C A C U C A A U C U U G A U A C U C A A U	CAUCUUCAACAGUGGUACUGUUAACCCUCCAAAGAA CCAUCUUCAACAGUGGUACUGUUAACCCACCAAAAGAA	JGAAACGGUGAGGAOAAGAAGAUGCUCGAGAAAU JGAAACGGUGAGGAOAAGAAGAUGCUUGAGAAAAU	UCGGUGCUGUGGGGGGGGGGGGGGGGGGGGGGGGGGGG	GUUUCAAAACCGGCGGUGAAGGUCCCGUGGGAGACA
OsWOX11C	AGGTCGCGGTGGACGCCGAAGCCGGAGCAGATACTCATCCTGGAGT	CATCTTCAACAGCGGCATCGTGAACCCGCCCAAGGAC	C G A G A C C G T C C G C A T C C G C A A G C T G C T C G A G C G C T	TCGGCGCCGTCGGCGACGCCAACGTCTTCTACTC	GTTCCAGAACCGCCGCTCGCGCCGCCGCCGCCGC
OsWOX11A OsWOX11B	A G G T O G C G G T C C G C C G A A G C O G G A G A G A G A T C C T G A T A O T G C A G T	CATETTCAACAGCCCATEGTGAACCCGGCCAAGGAC	C G A G A C G G C G C G C A A C C G C C C C	TCGGCGCCETCCECEACGCCAACGTCTTCTACTC	GTT CCAGAACCCCCCCCCCCCCCCCCCCCCCCC GTT CCAGAACCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
PaWOX8/9	a a g c g aga ugga a ucc a na acca gna cagc u c c g gau c uu a gna u	C GUAUUCAAUUCUGG CAUGGUGAACCCUCCAAGAGAU	J GA A MU AAAAAAGA <mark>AUCAG</mark> AGCUCAGCUACMAGAGU	UUGGACAGGUUGGGGAC <mark>GCCAA</mark> UGUCUUCUAUUC	GUUCCAGAACAGAAAGUCCAGAACCAAGGAAAGGCA GTTCCAGAATAGAAAGTCCAGAACCAAAAAAGGCA
PaWOX8A PhSOE	A AG COA COG FIGGA A TCO A MA ACO A GAGATT CO A ATCO TO GAA A A AG COA AGA UGGA A UCO A AG A COA GAA CA A A U A AG A AU U CU A GAA A	C C A T A T T C A A T T C T G G C T T G G T G A A C C C T C C G A T A G A T CU AUCUUC A AUUC A G G A AU C GU G A AU C CU C C	FGAAATAAAAAGAATCACCACCAGTTACAAGAGT IGAAAHAAGGAAAAHAAGAGCAAAAOHUCAAGAAH	TCGGAGAGGTTGGGGAGGCCAATGTCTTCTACTC AUGGUCAACUUGCUGAUGCCAAUGUUUUCUAUU	GTTCCAGAAIAGAAAGTCCAGAACCAAAGAAAGGCA GUUUCAAAAACAGAAAAUCAAGAAGCAAAAAAGACAAAGCA
PhEVG	A A G C A A A G A U G G A A C C C U A G G C C A G A G C A A A U A C G C A U A C U U G A A G	ЧТАНСНИСА АНИСАССА АНССИСААНССИССА АСАСАН	IGAG AHAAGA AAAAHCAGAAHCAAAAGHGCAAGAAH		
AtWOX8 AtWOX9		AAUCUUCAAUUCCGGUACUAUUAACCCACCUAGAGAG AAUCUUUAACUCCGGGAUGGUGAAUCCUCGAAGAGAGA	G G A G AU U C A A A G A AU C C G G A U C C G G OU U C A A G A A U S C A G AU C A G G A G G AU U A G G G C U C A G OU U C A A G A A U	AUGGU CAAAUCGGUGACGCAAACGUGUUUUACU ACGGC CAAGUCGGUGAUGCUAACGUCUUCUACU	GUUU CAA AAACC G GAAAUCU CGA G GAAAAGA CAAG CU GUU CAA AAACC G UAAGU C CCGU AGU AAAGA CAAG CU
PaWOX8B	A T T T C A A C A T G C C G T C C A A A A C C A G A G C A G A T C C A C A T C C T G G A A G	TATATTCAATTCTGGCGTGGTGAACCCTCCCAGAAAA	A GAA ATAAAAATAATCACAGCTCAACTAGAAGAAGAA	TCGCCCAAGTTGGGAATGTCAATGTGTTCTACTC	GTTCCAGAATAGAAAGGCCAGATCAAAGAGAAAG
PaWOX8C PaWOX8D	A A C T C A ACA TCC A TA A A C C A GAGOA GAM C C A C TT C C T G CA A G A A G T C A AGA TGG C A T C C A GA A A C C A GAT C C A GAT C O T G CA A G	CTATATTCAATTCTGGCATGGTAAACCCTCCCAGAGAA TATATTCAATTCTGGCATGGTGAATCCTACCAGAAAA	A G A A T A A A A A T A AT C A G A G C T C A G C T A G A A G A A T A C A A A T A A A A A T A AT C A C A G C T C A G C T A G A A G A A T	TCGGCCAAGTTGGGGATGTCAATGTGTTCTACTC	GTTCCAGAAIAGAAAGCCCAGAICAAAGGGAAAG GTTCCAGAAIAGAAAGGCCAGAICAAAGGGAAAG
CrWOXA	C G U C C A AGA U GG A C C C C G A C U C A G G A G C A G A U C C A G A U C C U G G A G U	GAUCUUCAACUCA <mark>GG</mark> AACCACUACCCCUUCCCGUGAC	CAUG <mark>AU</mark> CGUCGAC <mark>AUC</mark> GCGGCG CAGCU CAGAA A CU	A CGG C AA C AUUG GUGA GG C CAA C GU C UUC UA CU C	GUUCCAGAACCGAAAGGCUCGCGCAAAGCGCAAACU
CrWOXB	AGAAGAAGGUGGUGCCCUACUCCAGAAAUCAAUCAAUGUGGUGGAAA 200 210 220 230	G G U G U C AAC U C C G G C AC C AC C A C G C G U A C C C G U G C C 240 250 260 270			GUUCCAGAACCCCAAGGCUCCCCGCAAAGAGAAAGCU 350 360 370 381
VvWOX9	GCCCACCTCCAATCAACGGTCTTCATTAACGACGTGGCTTTCGAG	GGGAGTGGGCCCCTCCAACGEGCGTGAGGCTT	CGGGGACCACCCCGTTTEGATCAACTCCTACGGC	CACCCTGTGTCACCAATGAGTGGGGGTGCCACCC	TCCAGTCACTACAGCACCCCCCATTTACTACTCCTCGTC
VvWOX11 AtWOX11	GCGCCAGATTCAGGTTACGGTGTTCATCAATGGGGGTTCCAACTGAG	G T T C C AA A G G G G T C A T T T G A C A T G A A A G C T A T G T T	FTGGCCAAGATTTCGTGTTGGTCCATTCCTCCGGA	. G T G C C T G T T C C T T T C A A T G A A T T T G G C T T C T C A A	T G C A G A G C T T G C A A C A T G G T G A A A G C T A T T T C C T G G T T
AtWOX11 AtWOX12	GCGACAGCUACAGAUAACGCUGUUUAUAAACGGAGUUCCGACAGAA CCGGCAGCUUUUAAUGACGGUGUUUAUAAACGGAGUUCCUAUGGAA	BUAAQAAAA GGAGQAAUAGACAUGQAAAACAAUGUU	JCGGUGAUGAUUCGGUGUUACUUCAUUCCUCUGGU	CUUCCUCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	UGCAUAGCUUACAACAUGGUGAAGCUUAUUUCCUGGUU UGCAUUCUUUACAACAUGGACAAACUUAUUUCCUGGUA
OsWOX11C		GEGCCAAGGCCACCGAECGAECEAGAECAAEGE	TTGGGCAGGACGTGATGCTGGTGCATTCAACGGGT	GCTCTTCTTCCAGCCAACGAGTACGGCATCCTCC	TCCATTCTCTCCAGATG <mark>GG</mark> CGAGAGCTACTTCCTGGTC
OsWOX11A OsWOX11B	CCGCCAGCTCCAGATCCAAGTGTTCATCAATCGCGTCGCATACGA		TTERCCCCCCCARCONCCARCOCCCCCC	CACCTCCDTCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	NGCA GA G C CH CCAA A T CGC AGA G A G C LAC HTT C NGG NC NCAA CA G C THGCAG A T GGC GGA G TG C LAC HACC NGG NT
PaWOX8/9 PaWOX8A	A CCCAUUUUUUG AUAACUCUACUCAUAAAUCACAUCGOUGUUCAA A CCCCAAATTCAGATTACTCTGTTCATCATCAGATCCAGTTCAA	SUCCCCGUGCGACCAAUAAACGUCAGGCCUGUCUU SUCCCTGTGGGACCGATAAACCCCAAGGCTGTCTT	JCGGGGAAAACGCAGUUUUGCUUCACUCCACAGGC CCGGAGAAAATGCAAFTTTGCTCCACTCCTCTGGT	CAGCCGGUUUUACUGAAUGAAUGGGGGUUCACCU	UGGA AAG CCUGCAG CAUGG AGCU AU GUAU UACGUGA UA UGGA AG G CTUGC TG CA GCG AGC TAT G TAT HACT H GA HA
PhSOE	ACCCAAAGCACCUCAACUGUGUUUAUCAACCAUGUGGCUUUUGAG	GUUGGAGUA G GACC GUUU AA UGUCAAGGAAGUAUU	JUGGGGAAGAUGCAGUGCUCAUUCAUUCUUCUGGU	GAACCACUCGUUACAAAUGAAUGGGGGUCUCACAA	UUCAGCCACUCCAGCAUGGUGCAUUCUACUUGCUU
PhEVG AtWOX8	ACCCACCUUCAAGCAAUGAUUUUCAUCAACCAUGUGGGGUUUCAG UCCUGUUCAUCACAUGACGGUGUUUAUUAACCAGAUGCCUAUCGAA	BUGCEUGCUCGACECUUCAAUGUGAGUCAAGUAUU BUAGUGUCUGGAUUAUUCAACGUUAAGECAGCUUU			UUCAGCCUCUCCAACAUGGGGCAUUUUACUAGUA AUCAACCUCUCCAAAAUGGCGCAAUCUAUUAUCUUAUU
AtWOX9	CCCCUCCUCCACAUAAGACUUUUCAUCAAUGAAAUGGAGCUUGA	EUGAGCUCA – – – GGACCGUUCAAUGUGAGGEAUGCAUU	JUGGGGAAGAGGUUGUUCUGAUUAAUUCCGCGGGU	CAGCCCAUUGUCACCGAUGAAUAUGGCGUCGCUC	UUCACCCUCUUCAACACGGAGCCUCGUACUAUCUGAUC
PaWOX8B PaWOX8C	- CCACAACT GCAAATAATTCHAACCATCAATCACATTCAAATGCAA - CAACAACT GCAAATAAGTCHAAHCATCAATCACATTCAAATGCAA		ICGGA GAT GATGC ACTITIGCIC CATICGICICGC ICGGA GAT GATGC ACTITIGCIC CATICGICIGGC	CAGTCGGTCGTAGTGAATGAATGGGGCTTTACCT	TIGA AGGCCTGGAACATGGACCTACATATTCAACCHT TGGA AGGCCTGGAGCATGGACCTACATATTCAACCHC
PaWOX8D	- CGACAACTGCAAGTAACTGTATTTATCAATGACATCCAACGGAA	STCCCCAATCCGCCCATAAACTTCAGGCCTTTTTT	CGGAGATCATCCACTTTEGCTCCATTCGTCTCGC	CAGTTGGTTCTAGTGAATGAGTGGGGATTTACCT	CGGAAGGCCTGGAGCATGGACCTACATATTTCTHGCCT
CrWOXA CrWOXB	UGAACAGCCUGCCCCGCUAGUGUCGCCCCCUGUUUQUGCU UCCCAUGCAG				
I al a sa tito s		40 50		90 100	
Identity					
VvWOX9 PhSOE	K PRWN PK PEQIRILEAIFNSGM V N PPRDEI K PRWN PRPEQIRILEAIFNSGM V N PPRDEI				
PhEVG	K Q R W N P R P E Q I R I L E A I F N S G M V N P P R D E I				
AtWOX9	K PRWN PK PEQIRILEAIFN SGMVN PPREEI	RRIRAQ <mark>L</mark> Q <mark>E</mark> YGQ <mark>VGDANV</mark> FYWFQNRKS	RSKHK-LRLLHIRVFINEMELEVSS	5 – G P F <mark>N V</mark> R D A F G E E V V L I N S A G Q P I	V T D E Y G V A L H P L Q H G A S Y Y L I
PaWOX8/9	K PRWN PK PEQLRILES V FNSGMVN PPR DEI K DRWN PK PEQTRILES V FNSGMVN PPR DEI				
PaWOX8A AtWOX8	K PRWN PK PEQIRILEAIFN SGLVN PPIDEI K PRWN PK PEQIRILESIFN SGTIN PPREEI				
PaWOX8B	ISRWRPKPEQIHILEAIFNSGVVNPPRKEI				
PaWOX8C	NSRWHPKPEQIHFLEAIFNSGMVNPPREEI				
PaWOX8D VvWOX11	K S R W H P K P E Q I Q I L E A I F N S G M V N P T R K E I R S R W T P K P E Q I I I L E S I F N S G M V N P P K D E T				
AtWOX11	RSRWSPK PEQILILESIFHSGMVN PPKEET				
AtWOX12	RARWSPKP <mark>EQILILESIFN</mark> SGT <mark>VN</mark> PPKDET	VRIRK <mark>MLE</mark> KFGA <mark>VGDANV</mark> FYWFQNRRS	RSRRR – HRQLLMTVFINGVPMEVTK	K – <mark>GA I DMK TM</mark> FG DDS <mark>V L L H</mark> S S G L P I	PTDEFGFLMHSLQHGQTYFLV
OsWOX11C	RSRWTPKPEQILILESIFNSGMVNPPKDET				
OsWOX11A OsWOX11B	R S R W T P K P E Q I L I L E S I F N S G M V N P P K D E T R S R W A P K P E Q I L I L E S I F N S G M V N P A K D E T				
CrWOXA	R PRWTPTQEQIQILESIFNSGTTTPSRDMI				
CrWOXB	R TRWCPTP E QIN <mark>VLE</mark> T <mark>LFNSGTTTP</mark> TRA <mark>M</mark> I	V D I A S C L N Q F G S I V E A N V F Y W F Q N R K A	RAKRK-LRMQ		

Nucleotide and amino acid alignments used for the construction of the intermediate clade WOX gene tree.



Nucleotide Alignment used for the construction of the modern clade WOX gene tree.

	1 10	20	30	40	50	60	70	80	90	101
AtWOX4		GTRWNPTQEQIGIL	EML-YKGG	MRTPNAQQIE	HITLOLGKYG	KI <mark>EGKNV</mark> FY	WFQNHKARERQ	KQKRNDNVTI		I
PhWOX4		GTRWNPTQEQIGIL								
VvWOX4	CKRLRPLAPKLPC	GTRWNPTQEQIGIL	EML-YKSG	MRTPNAQQIE	QI TAQ <mark>L</mark> GKYGI	KI <mark>E</mark> GKN <mark>V</mark> FY	WFQN <mark>H</mark> KAR <mark>E</mark> RQ	KQKR <mark>NGD</mark> KTI	ELFPLHP	
OsHB3	FK <mark>CL</mark> RPLAPKIAC	TTRWN <mark>P</mark> SA <mark>EQI</mark> K <mark>VL</mark>	EML-YRGG	MRTPNSVQI <mark>E</mark>	RI <mark>TEEL</mark> GKYGI	RI <mark>E</mark> GKN <mark>V</mark> FY	WFQN <mark>H</mark> KAR <mark>E</mark> RQ	KQKRA		
PaWOX4	AS	GTRW <mark>N</mark> PTPDQIRI <mark>I</mark>	<mark>EMF – YK</mark> GG	MRTPNAEQIE	HI TAQ <mark>L</mark> RQYGI	KI <mark>E</mark> GK <mark>NV</mark> FY	WFQN <mark>H</mark> KAR <mark>E</mark> RÇ	QKQKR <mark>N</mark> KR <mark>DGI</mark>	LEVL KRSS	
AtWOX3		STRWCPTPEQLMIL	<mark>EEM</mark> -YRSG	IR <mark>TPNAV</mark> QIQ	Q <mark>ITA<mark>HL</mark>AFYGI</mark>	RI <mark>E</mark> GKN <mark>V</mark> FY	WFQ <mark>NH</mark> KAR <mark>D</mark> RQ	QK <mark>L</mark> RKK <mark>PL</mark> KTI	LELFPISS	
VvWOX3	AA	SSRWCPTPEQLMIL	<mark>EEM</mark> – <mark>YR</mark> GG	<mark>V</mark> RT <mark>P</mark> NASQIQ	Q <mark>ITA<mark>HL</mark>SFYGI</mark>	KI <mark>E</mark> GKN <mark>V</mark> FY	WFQ <mark>NH</mark> KAR <mark>D</mark> RÇ	OK <mark>L</mark> RRK <mark>PL</mark> KTI	QLFPITA	
OsWOX3		STRWCPTPEQLMIL								
GgWOX3		TTRW <mark>N</mark> PTA <mark>EQLMIL</mark>								
PaWOX3		\TTRW <mark>N</mark> PTP <mark>EQLMI</mark> L								
PsyWOX3		\TTRW <mark>N</mark> PTP <mark>E</mark> Q LVI L								
PhWOX3		<mark>PTRWSPTP<mark>E</mark>QLMLL</mark>								
GbWOX3B		TARW <mark>N</mark> STP <mark>EQLMIL</mark>								
GbWOX3A		STRWTPTPEQLMLL								
AtWOX5		CGRWNPT <mark>VE</mark> QLKIL								
VvWOX5		CGRWNPTTEQVKVL							LQLFPLNSPLD	DLRLSFL
AtWOX7		CGRWNPT <mark>VE</mark> Q <mark>V</mark> KLL								
OsWOX5		CGRWNPTA <mark>EQV</mark> KVL								
PaWOX5		GSRWNPTA <mark>EQV</mark> TIL								
PsyWUS		GSRW <mark>NP</mark> TA <mark>EQV</mark> TLL								
AtWUS		'STRWTPTT <mark>E</mark> QIKIL								
PhTER		STRWTPTTDQIRIL								
VvWUS		STRWTPTTDQIRIL								
OsWUS		GTRWTPTT <mark>E</mark> QIKII								
GbWUS		GTRW <mark>N</mark> PTPEQLSIL								
PaWUS		STRWN <mark>P</mark> TS <mark>EQ</mark> LT <mark>I</mark> L								
GgWUS		GARW <mark>N</mark> PTPEQLSIL								
AtWOX6		TLRWNPTPEQITTL								
AtWOX1		SSRWNPTPDQLR <mark>V</mark> L								
PhMAW		SSRWN <mark>PTPEQL</mark> QTL								
VvWOX1		SSRWNPTPEQLRTL								
VvWOX6		SSRWNPTPEQLQAL								
AtWOX2		SSRWNPTKDQITLL								
PhWOX2		'GSRW <mark>NP</mark> TK <mark>EQIDLL</mark>								
VvWOX2		SSRWNPTK <mark>E</mark> QISML								
OsWOX2		NARWTPTKEQIA <mark>V</mark> L								
GbWOX2		SIRWN <mark>PTKE</mark> QIA <mark>V</mark> L								
PaWOX2		STRWNPTKEQIELL								
PsyWOX2		ISTRWNPTK <mark>EQI</mark> DFL							EL F PLHPQ FE	FHFIPQH
CrWOXA	TP	RPRWTPTQ <mark>E</mark> QIQI <mark>L</mark>	ESI-FNSG	TTTPSRDMIV	DIAAQLRNYG	NIGEANVFY	NFQ <mark>NRKARAK</mark> F	RK <mark>L</mark> QQP		

Amino acid alignment used for the construction of the modern clade *WOX* gene tree.