

AtPUB14

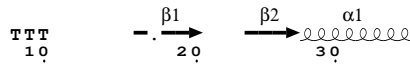
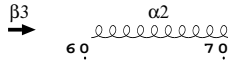


Table of protein sequence alignments for AtPUB14. The first column lists accession numbers (e.g., Glyma.13G059200). The second column shows the protein name (AtPUB14 consensus). The third column shows the amino acid sequence, with conserved residues in bold (e.g., FRCPISELMKDP). The fourth column shows the residue number (1 to 50).

lc1|Glyma.09G259100\_814-883 . . SYFICPIFQEVMDP.HVVAADGFTYEAEAIRGWLD . . .GGH . . .DNSPMTNSKLAHH  
lc1|Glyma.18G233500\_814-883 . . SYFICPIFQEVMDP.HVVAADGFTYEAEAIRGWLD . . .GGH . . .DNSPMTNSKLAHH  
lc1|Glyma.13G335700\_751-820 .PSFFSCPIIQEIMHDP.QVAADGFTYEGDAIREWLE . . .NGH . . .DTSPTNLKLSHL  
lc1|Glyma.15G038600\_747-816 .PSFFSCPIIQEIMHDP.QVAADGFTYEGDAIREWLE . . .NGH . . .DTSPTNLKLSHL  
lc1|Glyma.11G139700\_716-785 .PSFFLCPVFQEVMDP.QVAADGFTYEGDAIREWLE . . .NGH . . .E TSPMTNLKLTHTL  
lc1|Glyma.10G233500\_636-705 .PSHFVCPVIVQEVMDP.YIAADGFTYEEAIREWLN . . .SGH . . .DTSPTNLKLDHT  
lc1|Glyma.20G160900\_669-738 .PSHFVCPVIVQEVMDP.YIAADGFTYEEAIREWLN . . .SGH . . .DTSPTNLKLDHT  
lc1|Glyma.13G106500\_407-472 .PSQYVCPILQEIMDDP.YIAADGFTYEVIAIKAWLS . . .K.H . . .NVSPMTKLLQYS  
lc1|Glyma.17G052800\_689-754 .PSQYVCPILQEIMDDP.YIAADGFTYEVIAIKAWLS . . .K.H . . .NVSPMTKLLQHS  
lc1|Glyma.04G121100\_741-805 . .NHFTCPILQDVMDDP.CVAADGYTYDRKAIKWL . . .E.N . . .DKSPMTNMLPHK  
lc1|Glyma.06G317700\_730-794 . .NHFTCPILQDVMDDP.CVAADGYTYDRKAIKWL . . .E.N . . .HKSPMTNMLPHK  
lc1|Glyma.04G179300\_28-94 .PKEFTCPISGSLMSDP.VVVASGQTFERLAVQLCKD . . .LN . . .FSPKLLDDGTRPD  
lc1|Glyma.06G185400\_21-86 . .KEFTCPISGSLMSDP.VVVASGQTFERLAVQLCKD . . .LN . . .FSPKLLDDGTRPD  
lc1|Glyma.13G069300\_57-122 . .EEFLCPISRSLMFDP.VIVSSGHSYERSSVEACKN . . .VN . . .FTPQLPDGTTTPD  
lc1|Glyma.19G013500\_57-122 . .EEFLCPISHSLMFDP.VIVSSGHSYERSSVEACIN . . .VN . . .FTPQLPDGTTTPD  
lc1|Glyma.04G222600\_253-316 . . . . .PVTGALMDDA.MILPCGHSFGGGGIEHAIR . . .MK . . .ACCTCSQPTTEE  
lc1|Glyma.06G142700\_255-318 . . . . .PVTGALMDDA.MILPCGHSFGGGGIEHAIR . . .MK . . .ACCTCSQPTTEE  
lc1|Glyma.01G194100\_40-101 . . . . .CCSLTFTPFEP.VCTPDGVSFDNMNITPYIV . . .KYG . . .KH.PVNGAPLKHQ  
lc1|Glyma.11G047800\_40-101 . . . . .CCSLTFTPFEP.VCTPDGVSFDNMNITPYIV . . .KYG . . .KH.PVNGAPLKHQ  
lc1|Glyma.03G088400\_201-273 .PDYLCRITLDFHDP.VITPSSGLTYERAVILEHLQ . . .KVG . . .KFDPIITREPLDPS  
lc1|Glyma.16G085300\_110-182 .PDYLCRITLDFHDP.VITPSSGLTYERAVILEHLQ . . .KVG . . .KFDPIITREPLDPS  
lc1|Glyma.U008400\_249-321 .PDYLCRITLDFHDP.VITPSSGLTYERAVILEHLQ . . .KVG . . .KFDPIITREPLDPS

AtPUB14



AtPUB14  
consensus  
lc1|Glyma.13G059200\_942-1013  
lc1|Glyma.19G027200\_940-1011  
lc1|Glyma.10G208200\_248-320  
lc1|Glyma.20G182600\_247-319  
lc1|Glyma.11G140100\_256-328  
lc1|Glyma.12G063700\_257-329  
lc1|Glyma.18G176400\_260-330  
lc1|Glyma.03G253100\_49-114  
lc1|Glyma.19G250700\_62-127  
lc1|Glyma.20G220600\_60-130  
lc1|Glyma.08G345800\_78-143  
lc1|Glyma.18G155200\_78-143  
lc1|Glyma.07G188400\_8-72  
lc1|Glyma.08G061100\_8-72  
lc1|Glyma.13G249400\_8-71  
lc1|Glyma.15G064800\_8-71  
lc1|Glyma.07G216200\_275-347  
lc1|Glyma.20G013200\_272-344  
lc1|Glyma.01G131800\_273-345  
lc1|Glyma.03G036700\_271-343  
lc1|Glyma.05G162100\_287-357  
lc1|Glyma.08G119700\_287-357  
lc1|Glyma.13G225900\_291-361  
lc1|Glyma.15G086200\_291-361  
lc1|Glyma.01G195200\_65-135  
lc1|Glyma.11G046500\_130-200  
lc1|Glyma.05G107300\_60-130  
lc1|Glyma.06G270100\_64-125  
lc1|Glyma.04G047100\_37-103  
lc1|Glyma.06G047800\_39-109  
lc1|Glyma.17G233600\_35-105  
lc1|Glyma.U029700\_45-114  
lc1|Glyma.04G212300\_10-78  
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lc1|Glyma.05G192100\_8-76  
lc1|Glyma.08G000400\_8-76  
lc1|Glyma.02G083900\_13-82  
lc1|Glyma.16G170300\_13-80  
lc1|Glyma.05G189600\_10-76  
lc1|Glyma.08G147200\_10-76  
lc1|Glyma.06G151200\_12-78  
lc1|Glyma.09G030600\_12-76  
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lc1|Glyma.09G172100\_28-99  
lc1|Glyma.02G195900\_6-73  
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lc1|Glyma.09G199700\_729-794  
lc1|Glyma.18G147800\_727-788  
lc1|Glyma.03G008800\_809-878  
lc1|Glyma.07G070300\_813-882

HA..GLTFN<sup>β3</sup>YV<sup>α2</sup>LKSLIALW<sup>α2</sup>CESN..  
D...LTFNLA<sup>β3</sup>LKSAIQEW.....  
M...LIPDDE<sup>β3</sup>LKARI<sup>α2</sup>EEFVRSQE..  
M...LIPDDA<sup>β3</sup>LKARI<sup>α2</sup>EEFVRSQE..  
HT..ALT<sup>β3</sup>PNYV<sup>α2</sup>LKSLIALW<sup>α2</sup>CESNGI  
HT..ALT<sup>β3</sup>PNYV<sup>α2</sup>LKSLIALW<sup>α2</sup>CESNGI  
ST..VLT<sup>β3</sup>PNYV<sup>α2</sup>LRSLIAQW<sup>α2</sup>CEANGI  
ST..VLT<sup>β3</sup>PNYV<sup>α2</sup>LRSLIAQW<sup>α2</sup>CEANGI  
TS..ILIPN<sup>β3</sup>HALYGLISSW<sup>α2</sup>CEAN..  
HT..ILT<sup>β3</sup>PNYLVR<sup>α2</sup>DMILQW.....  
HT..ILT<sup>β3</sup>PNYLVR<sup>α2</sup>DMILLW.....  
HS..ILT<sup>β3</sup>PNCF<sup>α2</sup>LQNMISLW<sup>α2</sup>CKEH..  
HT..VLT<sup>β3</sup>PNHLIREMIEQW.....  
HT..VLT<sup>β3</sup>PNHLIREMIEQW.....  
HP..ALIPN<sup>β3</sup>HALRSLSINY.....  
HP..S<sup>β3</sup>LIPN<sup>α2</sup>HALRSLSINY.....  
HS..S<sup>β3</sup>LIPN<sup>α2</sup>HALRSLSI.....  
HS..S<sup>β3</sup>LIPN<sup>α2</sup>HALRSLSI.....  
T...LTFN<sup>β3</sup>YV<sup>α2</sup>LRSLSISQW<sup>α2</sup>CIEHNI  
T...LTFN<sup>β3</sup>YV<sup>α2</sup>LRSLSISQW<sup>α2</sup>CIEHNI  
E...LIPN<sup>β3</sup>RV<sup>α2</sup>LRNMI<sup>α2</sup>AAWCREQRI  
D...LIPN<sup>β3</sup>RV<sup>α2</sup>LRNMI<sup>α2</sup>TAWCREQRI  
R...LVPN<sup>β3</sup>RALRNMI<sup>α2</sup>MQWCSAH..  
R...LVPN<sup>β3</sup>RALRNMI<sup>α2</sup>MQWCSAH..  
R...LVPN<sup>β3</sup>RALRNLI<sup>α2</sup>VQWCTAH..  
R...LVLN<sup>β3</sup>RALRNLI<sup>α2</sup>VQWCTAH..  
S...VTPN<sup>β3</sup>TTL<sup>α2</sup>LYR<sup>α2</sup>LHTW<sup>α2</sup>FSQK..  
S...VTPN<sup>β3</sup>TTL<sup>α2</sup>LYR<sup>α2</sup>LHMMW<sup>α2</sup>FSQK..  
S...LTPN<sup>β3</sup>TTL<sup>α2</sup>LR<sup>α2</sup>LSTW<sup>α2</sup>FSQK..  
S...LTPN<sup>β3</sup>TTL<sup>α2</sup>LHCL<sup>α2</sup>LST.....  
S...VTPN<sup>β3</sup>TTL<sup>α2</sup>LHHF<sup>α2</sup>ILSW.....  
S...VTPN<sup>β3</sup>TTL<sup>α2</sup>LHHF<sup>α2</sup>ILSW<sup>α2</sup>FSQK..  
V...VTPN<sup>β3</sup>ST<sup>α2</sup>L<sup>α2</sup>SHL<sup>α2</sup>LITW<sup>α2</sup>FSQK..  
V...VTPN<sup>β3</sup>ST<sup>α2</sup>L<sup>α2</sup>SHL<sup>α2</sup>LITW<sup>α2</sup>FSQK..  
S...IVPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRHLID<sup>α2</sup>QWLQ.....  
S...IVPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRHLIN<sup>α2</sup>QWLQ.....  
S...IVPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRHLID<sup>α2</sup>QWLQ.....  
S...IVPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRHLID<sup>α2</sup>QWLQ.....  
D...FIPN<sup>β3</sup>LT<sup>α2</sup>LRHLIRLW<sup>α2</sup>LLS.....  
D...FIPN<sup>β3</sup>LT<sup>α2</sup>LRHLIRLW<sup>α2</sup>LLS.....  
D...FVPN<sup>β3</sup>RT<sup>α2</sup>LQRLIQIW.....  
D...FVPN<sup>β3</sup>RT<sup>α2</sup>LQRLIQIW.....  
D...FIPN<sup>β3</sup>RT<sup>α2</sup>LQSLIQIW.....  
H...FIPN<sup>β3</sup>CT<sup>α2</sup>LQNLIQ.....  
T...LIPN<sup>β3</sup>HT<sup>α2</sup>LRRLIQEW<sup>α2</sup>CVANR..  
T...LIPN<sup>β3</sup>HT<sup>α2</sup>LRRLIQEW<sup>α2</sup>CVANR..  
D...MIPN<sup>β3</sup>HA<sup>α2</sup>IRRM<sup>α2</sup>IQDW<sup>α2</sup>CVCHR..  
DD...MIPN<sup>β3</sup>HA<sup>α2</sup>IRRM<sup>α2</sup>IQDW<sup>α2</sup>CVCHR..  
D...LIPN<sup>β3</sup>HA<sup>α2</sup>IRMM<sup>α2</sup>IQDW<sup>α2</sup>CVQNS..  
D...IIPN<sup>β3</sup>HA<sup>α2</sup>IRRM<sup>α2</sup>IQDW<sup>α2</sup>CVENS..  
D...MIPN<sup>β3</sup>HS<sup>α2</sup>LRMI<sup>α2</sup>IQDW<sup>α2</sup>CVENRQ  
D...MIPN<sup>β3</sup>HS<sup>α2</sup>LRVMI<sup>α2</sup>IQDW<sup>α2</sup>CVENRQ  
D...LTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQAW.....  
D...LTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQAW.....  
TD...LTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQAW.....  
TD...LTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQSW.....  
TD...LTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQAW.....  
SD...LTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQAWCTQN..  
SD...LTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQFWCTQN..  
SQ..YLTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQAWCSAN..  
SQ..YLTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQAWCSAN..  
PE..FLTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQAWCSANE..  
TE..FLTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQAWCSANE..  
HG...LTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQSW.....  
HD...LTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQSW.....  
TD...LTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRRLIQAW.....  
E...LVPN<sup>β3</sup>TALK<sup>α2</sup>KLKIQ<sup>α2</sup>FCSESN..  
D...LVPN<sup>β3</sup>TALK<sup>α2</sup>KLKIQ<sup>α2</sup>FCADNGI  
E...MVPN<sup>β3</sup>LV<sup>α2</sup>LRRLIQ.....  
G...LTPN<sup>β3</sup>MAMK<sup>α2</sup>DLISEW<sup>α2</sup>CKNN..  
G...LTPN<sup>β3</sup>MAMK<sup>α2</sup>DLISKW<sup>α2</sup>CRNN..  
A...LTPN<sup>β3</sup>IALK<sup>α2</sup>DLK<sup>α2</sup>LKWCETN..  
A...LTPN<sup>β3</sup>VALK<sup>α2</sup>DLK<sup>α2</sup>LNWCKTN..  
C...LTPN<sup>β3</sup>YCVK<sup>α2</sup>GLVSSW<sup>α2</sup>CEQN..  
C...LTPN<sup>β3</sup>YCVK<sup>α2</sup>GLVASW<sup>α2</sup>CEQN..  
C...LTPN<sup>β3</sup>YCVK<sup>α2</sup>GLVASW<sup>α2</sup>CEQN..  
C...LTPN<sup>β3</sup>YCVK<sup>α2</sup>GLVASW<sup>α2</sup>CEQN..  
N...LIPN<sup>β3</sup>YTVK<sup>α2</sup>ALIANW<sup>α2</sup>CESN..  
N...LIPN<sup>β3</sup>YTVK<sup>α2</sup>ALIANW<sup>α2</sup>CESN..  
H...LIPN<sup>β3</sup>YTVK<sup>α2</sup>ALIANW<sup>α2</sup>CESN..  
N...LIPN<sup>β3</sup>YTVK<sup>α2</sup>AMIANW<sup>α2</sup>CEEN..  
N...LIPN<sup>β3</sup>YTVK<sup>α2</sup>AMIANW<sup>α2</sup>CEEN..  
N...LIPN<sup>β3</sup>YTVK<sup>α2</sup>AMIANW<sup>α2</sup>CEEN..  
S...LAPN<sup>β3</sup>CALK<sup>α2</sup>SLIEEW<sup>α2</sup>CENN..  
S...LAPN<sup>β3</sup>RALK<sup>α2</sup>SLIEEW<sup>α2</sup>CENN..  
TL...RSN<sup>β3</sup>VR<sup>α2</sup>LRESIEEW<sup>α2</sup>REVN..  
TL...RSN<sup>β3</sup>IP<sup>α2</sup>LRQ<sup>α2</sup>SLIEEW<sup>α2</sup>RELN..  
EL...NPSMA<sup>β3</sup>LRN<sup>α2</sup>TIEEW<sup>α2</sup>TARNE..  
EL...KPNIG<sup>β3</sup>LAGAIEEW.....  
IL...RPN<sup>β3</sup>KKL<sup>α2</sup>KQSIQEW.....  
IL...RPN<sup>β3</sup>KKL<sup>α2</sup>KQSIQEW.....  
QLP...KTN<sup>β3</sup>YV<sup>α2</sup>LKRLIASW<sup>α2</sup>KDRN..  
QLP...KTN<sup>β3</sup>YV<sup>α2</sup>LKRLIASW<sup>α2</sup>KDRN..  
TLP...KTN<sup>β3</sup>YV<sup>α2</sup>LKRLITSW<sup>α2</sup>KEQN..  
TMP...FTN<sup>β3</sup>LILK<sup>α2</sup>RLIDN<sup>α2</sup>WKSE..  
TMP...FTN<sup>β3</sup>LILK<sup>α2</sup>RLIDT<sup>α2</sup>WKSE..  
F...LTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRSLIEDW.....  
F...LTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRSLIQDW.....  
L...LTPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRSLIEDW.....  
N...LVPN<sup>β3</sup>HALRHAIQNW<sup>α2</sup>LQSH..  
H...LVPN<sup>β3</sup>H<sup>α2</sup>TL<sup>α2</sup>LRHAIQNW<sup>α2</sup>LQSH..

lc1 Glyma.09G259100_814-883	N...LVPNRA LRS AI QDWLQNH..
lc1 Glyma.18G233500_814-883	N...LVPNRA LRS AI QDWLQNH..
lc1 Glyma.13G335700_751-820	F...LTPNYA LRL AI QDWLCK...
lc1 Glyma.15G038600_747-816	F...LTPNHA LRL AI QDWLCK...
lc1 Glyma.11G139700_716-785	N...LTPNHA LRL AI QDWLCK...
lc1 Glyma.10G233500_636-705	D...LVPNYA LHN AI LEWQQQ...
lc1 Glyma.20G160900_669-738	D...LVPNYA LHN AI LEWQQQ...
lc1 Glyma.13G106500_407-472	V...LTPNHT LRS AI QEW.....
lc1 Glyma.17G052800_689-754	V...LTPNHT LRS AI QEW.....
lc1 Glyma.04G121100_741-805	H...LIPNYT LLS AI LEW.....
lc1 Glyma.06G317700_730-794	H...LIPNYT LLS AI LEW.....
lc1 Glyma.04G179300_28-94	FS.TIIPNLA IKT TILHW.....
lc1 Glyma.06G185400_21-86	FS.TIIPNLA IKT TILHW.....
lc1 Glyma.13G069300_57-122	FS.TIIPNLA LKS AI LKW.....
lc1 Glyma.19G013500_57-122	FS.TIIPNLA LKS AI LKW.....
lc1 Glyma.04G222600_253-316	S...ISP NLS LRI AV QAYRREEE..
lc1 Glyma.06G142700_255-318	S...ISP NLS LRI AV QAYRREEE..
lc1 Glyma.01G194100_40-101	D...LIP.LTF HKNSEGEY.....
lc1 Glyma.11G047800_40-101	D...LIS.LTF HKNSEGEY.....
lc1 Glyma.03G088400_201-273	Q...LVPNLA I KEAV EAF LDKHGW
lc1 Glyma.16G085300_110-182	Q...LVPNLA I KEAV EAF LDKHGW
lc1 Glyma.U008400_249-321	Q...LVPNLA I KEAV EAF LDKHGW