

CLUSTAL FORMAT for T-COFFEE Version\_5.05 [http://www.tcoffee.org], CPU=2.41 sec, SCORE=40, Nseq=6, Len=409

*P. sitchensis* MEYCNRQESVT-----EPNL-----DHDQASAGCK----  
*A. thaliana* --MTNAQELGQ-----EGFMW-----GISNSDDSGGGCKRI-E  
*V. vinifera* -----MA-----EGGHHEGFLWENQS WGF SNS DNGGS DKKSGE  
*M. truncatula* -----MA-----MTLDD-----DQWIHEFFMGGNQSSGPFNSDKS---DE-N  
*O. sativa* -----MS-----QEGADLSQDVDESPYHTAVVTTNNLVRSIKAE  
*S. moellendorffii* MASCILPAFSTIVPEFSTAR YDADARIRDWGMYPERFGVVVESLAAPQQQHDSAIEMSG-  
  
*P. sitchensis* -----PREP-----KSID-----HKKS AQALKL-----  
*A. thaliana* KEPLPSHP-----SHPS-----PEIQTTEVKK-----  
*V. vinifera* KQPGSAS-----NSQTAATGMDLVP-P-----  
*M. truncatula* KEPLDIE-----SMSQNVEKEEETL-V-----  
*O. sativa* KSNSSSS-SGKPVETDIGLKVASPTMF GFNTKIEGTGKNMAV-----  
*S. moellendorffii* ---LVARSSHCKIEPDCLIRAPS-DFSQFPSKAVGDSSSLDYHLHKGVKRPLEVVDMAAS-----  
  
*P. sitchensis* -----GEGL-LGNSLMKSIEPEDQGIHIWTERERRKKMR-----  
*A. thaliana* -----GKKRTKRNDKNHEEESPHEIHIWTERERRKKMR-----  
*V. vinifera* -----DKKRGRGGAIKNGKNGKGSGEGNEKGSGGG-GGGESDHEIHIWTERERRKKMR-----  
*M. truncatula* -----NKKQC EGGV-TSESGN LNVKNDKGKDINC--RISSHEKHARAERERRKKMR-----  
*O. sativa* -----KREEGE GG--GRPGVSSGVSTRDTNGKGKNAMDMEHALHIWTERERRKKMK-----  
*S. moellendorffii* SKNTAKEKRLSDDCGS LHSVQDTTTGGAAASPLCSSPSKMG-EPDHEVHIWTERERRKKMR-----  
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*P. sitchensis* SMFSNLHSLLPHLPAKADKST IVEEAI SYIKTLQQS LHVL ENQR LDKARA AS TLE FELSS  
*A. thaliana* DMFSKLHALLPQLPPKADKST IVDEAVSS IKSLE QTLQKLEM QKLEKLQYSSAS-----TN  
*V. vinifera* NMFSSSLHALLPQLPPKADKST IVDEAVNY IKTQH TLQKLQKQKLERLQGATTVN YEPS-----  
*M. truncatula* SMLDSLQDLIPHILAYKVD SVTIVEETVKHIEYLQTLKELKLQKKEKLKSFS-----  
*O. sativa* NMFS STLHG LLLPKIPGKTDKASIVGEA IYIKTLED VVQKLET IKT ERVRAHQWA AAAA-----  
*S. moellendorffii* SMFVTLHSMLPKVPSKADKST IVDEAITY IKSLE QKM QRLL KK SEKA KSAL-----  
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*P. sitchensis* TFHEMQQQHHVSTATMPSASEAPAFYHPLTAECASSGFEPWISRQYSRTISTGS-----P  
*A. thaliana* TTPTTTFAYAPSSSS PTALLTPISNHPI DATATDSY PRAAFLADQVSSSSAAAANLPY P-----P  
*V. vinifera* II T-SQKLA FDSRE AFLADQ-----GSSSN LAIT PS-----NSSNS LS VAR PAV-----  
*M. truncatula* -----EAFTSDQ-----RPF-----S LNSQM VTSN ALAF-----  
*O. sativa* A-----VAANGGGEGSSHSHSQPPRHATAVTVAVAEPAPVAAVNAQAPQKKAAAAAAP-----  
*S. moellendorffii* -----QQSEASGDGD KAKN KM-----VSDSE ILV TQ RG-----SNS-----  
  
*P. sitchensis* AIDHCF-FQTWSSPNVVL SVC GDDAHMMI CSS PP KQGLL TT IF-YTLEKHKV DVV TAH IS  
*A. thaliana* CNDPIVNFDTWSSRN VVLTICGNEAFFNLCVPKH KPGVFT SVC-YLFEKYNM EVLFAN VS-----  
*V. vinifera* -----FQS WTS PNVT LNC VCG NEAQ I SVCS PK-KPGLL TT IC-YVLEKH KLEVI SAH VS-----  
*M. truncatula* -----QQMWF SQN VT FN IC GDE A QFCI YTT K-KPSL TT IF-YVMEKH KID VI HAN IL-----  
*O. sativa* -----TLQTWSAPN IT LT MAGV DAFIN MCLPR-QRASFTT VA-FVLEKH QI DVV TST IS-----  
*S. moellendorffii* -----SFRTLSSN NVV FNLC GAD A FIT IC ASA-RPNLLS RIF SC VI QML RMD VR NV QIT-----  
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*P. sitchensis* SDS-CRS MYMI HAQA HAMV NGG DQ FLES KASEE AF RS AAG E LV FY LS-S  
*A. thaliana* SNV-FW STY VI QA QVN PSC ENQ-LL GNG LG VV DV FK QV S QEL VL YF SSL-----  
*V. vinifera* SDY-NR S MYMI QT N ANG AL DQ-FPV G FPM EEV YK QAA GE IM FW AS-S-----  
*M. truncatula* CNN-NAK S CM I QAH V KR AT HE-SQ NAI S VEE SY KLA AGE I RG LLI-F-----  
*O. sativa* ADH-DK S LFS VHV RL NE ASI Q-STE GLT PEAK Y KLA V SEL MV RLA-E-----  
*S. moellendorffii* DTS DN R R L L II HAC AT DV TR-TSE GD LR NV M QEL I GC I-L-----  
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