

S1MDLQNI^{AL}GLTLD^{GT}RYCPAADCLDT^{LV}Q^LGP^{HL}DE^D.IDF^Q.^{FR}IK^IVSSKFFENQ^{LV}Q^{LL}VHVGQENE
S2 MMEEDY^{IS}GIC^{LY}L^{GT}KV^{GD}RYITNYNTANI^{LN}D^{IN}SR^{LN}EE^{DK}TL^QTY^RK^QLNFAHLVKGD^{LI}PT^{LL}NGS....

S1 DELS^{IT}LLQL^{IK}VL^{LC}QMTA^{PF}ESFTHAAA^{PV}GSLAYTAQK^{HF}L...SLV^{KH}V^{FR}ESRV^{TW}PT^{IL}SL^LKLK.LNP^{SL}
S2 AD^{IK}VYDAT^{VR}LL^{VN}L^{LV}PVECLVP...PDHVKS^{RK}SSI^{HQ}LSMALGKT^{KE}L^{FR}HEGPT^{ES}V^LQFL^{SS}FSAG^{SS}K

S1 EETAAKID^{YE}AVKDC^{LQ}LI^{IN}LLS^{IS}DE.....V^{CST}AAAVIANLQKPSERYGF^{VW}Y^{LY}Q^NFD^{TV}V^{IN}CK.
S2 QKQLSVRE^{VST}INNS^{LL}LL^{RNV}LH^{IP}DN^{TK}KKHREP^{NCST}H.....NKI^{TW}N^LFK^{QN}ID^{VV}I^{SE}LMGH

S1 ..A^{HR}CTEQ^{VM}K^{IT}I^{LL}YKGVETWK^{IK}HH^{LM}D^{WI}C^{QS}IS..^{SS}ESYPDST^V..HTNS^{MN}GQ^{TF}P^{EE}D^{QS}S....
S2 VN^{AS}DWASA^{IV}QL^VAL^{LY}KDQHVLT^{LQ}TK^{LN}AYMET^{TI}GDV^{SE}ED^{YES}NTSPN^QEREN^{ESP}ST^{IP}ST^{DR}T^NEDSN

S1 LSSK^{ER}SGY^{GV}SGSSGG^{AG}SS^{PS}QTEV^{VN}SPD^T.LSL^{SS}QNASPN^{SG}TMAPMDIPDSG^{TL}AP^{KE}IK^{TR}D^QEG^{SE}
S2 SSDP^{ER}EYR^{GP}NGAR..^{AE}NS^{PS}KVKK^VAGWKSAREF^{SS}G.....V^{CSS}.....HSSNTS^{KQ}SRSTTD^NNEAD

S1 EEP^{EM}K^{RH}K^VTED..^{FYS}.....^{RK}.....^RK^{SK}K^{ER}DQH
S2 GE^{PL}L^{KK}L^KTEKEPA^{FK}STTDSAL^{KN}HIPRNDNDNKP^KVENANLIMSGDRIMSGDSSD^NSDIFGVP^{KL}K^VAGDY

S1 YR^{DL}G^FY^{SG}V^{NE}E^{TE}SE..^{GP}D^{PR}LIRNSELSDNGYFSNNICDFEEI^{KV}K^{FD}^{PS}K^{LS}F^{MA}RH^QHS.....^M
S2 VT^{DF}G^YV^{TI}Q^{LY}EN^{KN}Q^{EQ}SSS^{DD}NL.....^{PR}D^{PR}P^Q^{PV}K^LK^PN^QEQ^QTP^IQ^KR^KQ^RLM

S1 K^{LL}ERRVEHN^{KT}TS^{RS}L^VYQ^VATE^{LD}V^{LA}IL^{TE}FT^{ID}FL^KGYR^{KL}LAD^VQEI^{AK}D.P^{IN}TFR^{FK}E^FY^{SW}M^VY^Y
S2 W^{LF}N.VGREK^{RM}RL^KAM^{VN}H^{IP}T^{NE}D^{IT}EL^{LV}D^{FT}IE^{FI}L^TAF^{GK}LV^{DA}L...^{MG}K^{EG}S^{IC}N^DLE^KSH^{EL}W^{LV}S^Y

S1 F^{IP}M^TAD^LG^{IP}L^{KH}I^{SL}..^{QY}DT^IH^YI^{IA}E^{TL}L^{NA}IK.....^{IT}VST^{NP}L^{PL}N^LK^LVAGF^VR^AQ^{QS}F^VET^{IN}R
S2 F^{LK}I^{SY}L^{ID}M^{EL}D^QI^{SL}ALS^{FK}AI^{AL}I^{TY}E^{GL}V^QLETLELANRD^{ML}TD^{IN}P^HSGRM^HL^V...^{VT}AI^{KE}F^LQAI^{AT}

S1 YMENT^{FTE}Q^QDRTN^{LK}NI^{QL}Q^{II}Q^{TK}N^{IR}Q^{LY}V^{LL}TK^{LA}TDEK^{ML}SR^{KY}L^{SH}LVET^{NH}M^HIT^MI^{QQ}ASQDTRTH
S2 YKQSHY^{LT}Q^{GE}K^{YK}L^{DT}L^{QH}Q^{IS}ASGSL^{RQ}L^{LL}LL^{LR}S.YNPL^{IQ}SL^{QY}L^{GD}L^{VM}C^{NH}M^VLVN^{LEE}V^{DG}.TLHES

S1 IN^{LA}SH^{IE}Q^{FA}STDM^{MK}P^YIF^{LL}ES^{FSE}.....NSN^{TV}ND^{CV}FTMM^{HH}V^{GD}L^{SS}P^{QA}L^{DV}D^{SL}HSTIR^{KI}V^NQ
S2 L^{KL}G^{AH}L^KQ^{FA}NTEL^{MR}Q^YGR^{LL}AE^YYRTPVNGDGLV^{SL}ND^{GI}FTMM^{HH}V^{AG}DLNAPHT^{LY}L^{PT}IL^QT^{FS}R^{IL}E.

S1 QDLS^{LC}DDW^{KD}LLEY^{MI}V^YFTTKKVTVEDHPTN^{PE}PS.PIS^{AE}G^{SK}KSGTKRRL^{SR}T^{CF}VGPNAANS....^{SAV}
S2 DSTEL^{LC}DDW^{VD}LVEY^{II}I^{QK}F^{IQ}TMG...R...^{SP}QRCAETM^{AD}GMDIVD..IVD^{SK}N^{GL}.TPSQTNQMFYH^{FSK}V

S1 SETEDCT.....^{ASQ}N.....^{TC}SW^{IS}SLD^{ID}PD^{MI}HQDTA..LD^{DS}
S2 ENTNDPV^{GA}LIEIYRQTDGLSL^SRLAVIQSL^LTHGIITH^{SQ}YMNFMYMK^{SV}MEMHTIEKE^{PS}V^{LA}EVGSEHCASD

S1 GWSTDDSGAS^{DV}QS..QPKPPNPDE^{IK}K^LTRV^{LSE}NGQGD^{LV}D^{WL}Q^{GS}L^{DA}WRV^{KI}DVGT^{LY}PD....^{RV}PL
S2 GH^{LT}DN...EDIEESSRRQTIDIR^{EI}EV^{LK}DC^{LK}K^QGRES^{LIT}W^{VQ}DV^{LV}D^{VCR}V^{KI}SPNGV^{FG}GDPT^{CR}TPN

S1 EPLP^YYCHARG^{LR}I^{PL}L^{MF}NSRLIH^{CN}Q^{NE}D^{FL}N^LARE^{LG}LE^T...V^{GR}L.VF^{IP}CKLQTS^{HL}Q^{GA}LAL^{GP}V^{SH}
S2 EPI^{PF}HFN^{LAK}QNI^{PL}V^{FN}RVQYQGL^{QTE}A^{FV}L^{LL}H^{LK}LG^{FL}IPAD^{VCK}V^{YPR}IPYFWSAD^{HL}TV^{ANK}L^{GP}I^{KT}

S1 TPL^{FP}....EL^NHADP.....
S2 HK^LSKKDMK^{RI}NETNANTETNLKNETTNDGIADLINHPVRSSSGYRSTSEWFRMSMASKTLLLPPTPMNQ^T

[⊠] non-conserved
^X similar
[⊠] ≥ 50% conserved
^X ≥ 70% conserved

Figure 1: Temora longicornis TIM

S1 - TRINITY DN2788 c0 g1 i1.p1 ORFtype complete len 976
S2 - TRINITY DN9031 c0 g1 i19.p1 ORFtype complete len 1119