

Figure S1:

Block A, Block B, Block C, Block D, Block E, Block H, Block F, Block G

Hvo polB DSVT**GDRPVVVRDP**GGTVRILPIEDLFARGTT-ESEVLIAADGDVVASATPGKTRRAL
Hwa PolB-3 DSVT**GDRPVVVRDP**SDYIQIVPIKLLFEQATAPEQNMRLTADGAPSVNSELPKERRHL
Ton-NAI Pol NS**ILPDEWVPL**LIDG-RLKLTRIGDFVDNAMD-EGNPLKSNETEVLVLEVLGIN-----
Tzi Pol NS**ILPDEWIPL**LING-RLKLVRIIGDFVDSAMK-ELKPMKRDETEVLVLEVSGIG-----

Hvo polB DGWDALSVN-EDGEAEWQPIAQAIRH-NTDKPVVNLQHK**FGES**-TTTRDHSYVVPGED
Hwa PolB-3 DQWEALSLS-DTGETEWQPINQIIRH-QTDKEILTLQHE**YGES**-TTTRDHSYITADDG
Ton-NAI Pol ----AISFNKTKISEVRPVRALIRH-RYRGKVYSIKLSS**GRKIKVTEGHS**LFTVKNG
Tzi Pol ----AISFNKTKRSETMPVRALLRH-RYSGKVYGIKLS**GRKIKVTAGHS**LFTFRDG

Hvo polB GLTTVSPDDVAE-----PYRVS-----GVPDVEPEVQV-----
Hwa PolB-3 EYVETSPENVDE-----PLPIP-----NIASVKTIETI-----
Ton-NAI Pol ELVEVTGGKVKPGDFIAVPRRINLPERHERINLADVLLNLPEEETADVVLTIPTKGR
Tzi Pol ELVEIKGEEIKPGDFIAVPRINLPERQERINLVEVLLGLPEEETADVLTIPVKGR

Hvo polB -----DVYEVLRGYEREYEDGRSVGSDNSITKRK
Hwa PolB-3 -----DIYQTL-TTDTQAQIGNDTEPKWLPSAD
Ton-NAI Pol KNFFRGMLRTLRLWIFEGEKRPRTARRYLEHLQKL-GYVRLKKIGYEVLDKALRKYR
Tzi Pol RNFFFKGMLRTLRLWIFGEEKRPGTARRYLEHLQTL-GYVRLGKIGYEVNEEALRDYR

Hvo polB QIHA-----DDEYVWFG---HEHHRDVDSTVKVKRFVDIDSE-----D
Hwa PolB-3 CIHA-----NDEYVWIGTTDKQQDRD-DSTPAIPRYIDLTS-----T
Ton-NAI Pol ALYEVLAEKVRYNGNKREYL---VAFNDLRD-----KIEFMPEEELREWKIGTLN
Tzi Pol GLYETLTGKVKYNGNKREYL---VHFNDLRD-----IIRLMPEKELKWKVGTLN

Hvo polB G-----AALIR**LLGAYVPEGS**ASTGETAT--SKFGASLAESDREWLAQLQRD
Hwa PolB-3 G-----HALIR**FLAVYLSDW**SKSTITTTE--RGQCLHITGPQESALKTCAAD
Ton-NAI Pol GFRMEPFIEVNEDLAK**LLGYVSEGY**AGKQRNQKNGWSYSVKLYNNDQKVLDDMERL
Tzi Pol GFRMETSIEVKEDFAK**LLSYYVSEGY**AGKQRSQKNGWNYSVKLYNNDQNVLDDMETL

Hvo polB YSRLFENTTAGIITSDRRAERTVEYQTDGTGGASVTYNDETLLQMMNELAAVFFREF
Hwa PolB-3 ADQLFTHITPSIAVDAESNTNTV-----DSGFRCHIPTTLATTLISAF
Ton-NAI Pol ASKFFGKV-----RRGKNYVE-----MPKKMAYVLFKSL
Tzi Pol ASKFFGKV-----RRGKNYVE-----IPRKMAYVLFESL

Hvo polB AGQTSRGKRIPSFVHFLPEEKQDL**FLTLLV**-----**EGDGS**REFPRYTEAYAQRNFD
Hwa PolB-3 AGHPAHT**KQIP**SIVYHLPAAEQSL**FIRHLI**QAESTP**ESDGV**SGRPQKSDKPILLENE
Ton-NAI Pol CGTLAENKR**VPEVI**FTSPENVRWA**FLEGYF**-----**IGDG**-----DLHPSKRVR
Tzi Pol CGTLAENKR**VPEI**IFTSPESVRWA**FLEGCF**-----**IGDG**-----DLHPGKGV

Hvo polB FE**TTSRELAAGLSMLLTQRGQ**KHSLKYRDSKDSYTIRTCTST-----YR-----
Hwa PolB-3 FI**TTNRELAAGVSMMLTQCGQ**SYTISKQDTKGAYTIHINNS-----SS-----
Ton-NAI Pol LS**TKSETLVNGLIILLNSLGI**S-AVKIRFESGVYRVLVNEELSFLGNSKKKNAYYSH
Tzi Pol LS**TKSEELVNGLVILLNSLGV**S-ALRIWLDSGVYRVLVNEELPFLDKGKKKTPY---

Hvo polB -----EGRDPVLTEA---

Hwa PolB-3	-----SGCTPTLTET--
Ton-NA1 Pol	VIPKEILEDVFEKRFQKNVSPKKLREKIKRGELNQEKAKRISWLLEG-DIVLDRVEE
Tzi Pol	VTSKEIPEEAFGKRFQRNISLEKLREKVEKGEPEAEKVKRVVWLLEG-DIVLDRVEE
Hvo polB	----DHDGYVYDLSVEENENFVDGVGGIVLHNT
Hwa PolB-3	----THSGYVYDLSVATNQNFVDGLGGLVLHNT
Ton-NA1 Pol	VEVEDYNGYVYDLSVEENENFLAGFGMIYAHNS
Tzi Pol	VAVDDYEGYVYDLSVEENENFLAGFGMLYAHNS