

A

Organism SP *hetR* *sepJ* DH

patX candidate

Hyp or
MTase *glnA*

Nos21 #		MRTTFSLVSSVVLGSLVFNNGSDSLNRSHTLIGDTGGKMLL--SAK-----	EKKPKKSNEPENPTPHRGSGRDLIESLNNAFPVG	←	←
Nos7107 +		MRVTFSLVSSVVLGSLVFNNGSDKFNRSHTLIGDAGGKMLL--SAK-----	EKKPKKSNEPENPTPHRGSGRDLIESLNNAFPVA	←	←
Nos7524 #	←	MMRAAVPFLVSSLVFGSLAVDYQQIVNQNSIFPSTTSQDMV--SLR-----	PKPKRNEPEGATPVHRGSGRSLIESQANTLPNV	←	←
Nos3756 #	←	MRAAVPVLVTSLVFGSLIFDSLEMVNRNNSPSSN-TEYMA--SLKYK-----	PKRNPQPEKPVPHRGTRGRSFIENTQTAV	←	←
Ana29413 #	←	MMRAAVPVLVSSLVFGSLVSDYLGIANHNFAFSSNSQNMV--SLKSK-----	PKRNPQPEKPVPHRGTRGRSLIESPIHVQITV	←	←
Ana7120 #	←	MMRAAVPVLVSSLVFGSLVSDYLGIAHDFAFSPNSQNMV--SLKSK-----	PKRNPQPEKPVPHRGTRGRSLIETYSNAHLIA	←	←
Ana310F #	→	MRAAISLLVSSLVFGSLAFNCEAVQTHFSALSRLKSDYQPSPLTNQSFTEGETKENLADNSK-----	PSPNDPQTPNPHRGSGRSLLEG	←	→
Ana102 #	→	MRAAISLLVSSLVFGSLAFNCEAVQTRFSALSMAKSDYQLSPVLNQS-----FNLADNSK	PSPNPQPEKPNPHRGSGRGLDG	←	→
Ana90 #	→	MRAAISLLVSSLVFGSLAFNCEAVQTRFSALSMAKSDYQLSPVLNQS-----FNLADNSK	PSPNPQPEKPNPHRGSGRGLDG	←	→
Ana7108 #	→	MRAAISLLVSSLVFGSLAFNCEAVLTRLSYLLIATSGSQQLL-----ADKPK-----	TSPNPQPEPAPHRGSGRKESMGYSRNIYSVV	←	←
Ana7122 #	→	MRAAISLLVSSLVFGSLAFNGEAMLTRLSYLLIAGSGSQQLL-----ADNPK-----	PGPNQPEQPAPHRGSGRRESMEYFRNIHSVV	←	←
AnaAzo #	←	MRAAISLLVSSLVFGSLAFNYDAMFTSLSHLLIANGSGKLL-----ADNSK-----	PGPNQPEQPAPHRGSGRKESIEFFLNITSSAV	←	←
CylR505 #	→	MRAAISLVSSMILGSLAFHHTVFTNPSRLSTSNNGRGLL-----ADSSK-----	PSPNPQPEEPAPHRGSGRKESIEFLGFISLA	←	←
RapD9 #	→	MRATISLVSSMILGSLAFNRETFTNPSRLSTSNNGTGLLF-----ADSSK-----	PSPNRPGEPTVYRGSGRKESINL	←	←
CylS7417 +	←	MRAAIPLLVSSLVFGSLALNCEAMLGQLSRLLLVSSGSQQLLV-SAK-----	PKPRNPQPDKPVPHRGSGRRELMESFGNAHFVI	←	←
Nos29133 #	→	MRAAISLLVSSLVFGSLASNCQAMVNHLSTGLLSTPTSEQWL-SAASE-----	QNPDAPRHRGSGRREVTKQFGNTYVV	←	←
Nos29133-b +*		MPFTFYILVWTFVFLSLLNSIQINKLSQTLTYPTKYKQQLFSEI-----AKSNT-----	PSTFVYRGGRRYLIEPFKNIAPLV	←	←
Nod9414 #	←	MRATISLLVSSLVFTTLAFNCPAKVNRLSQMLLSSFGSQQLH-SL-----	NEPESPILHRGSGRRSVIEKSGANA	←	←
Tol7601 #	←	MRAVVSLLASSLVAVSFAINCQATINQFSRLLEPSSGSELL-SAR-----	PKPKPNQPEKPVPHRGSGRRELIESYKNVHPAV	←	←
Cal7507 #	←	MRAAISLLVSSLVFGSLAFNYQGMANQLSRQMLASSGSEELL-SV-----	RPKPKPNQPEKPAHRGSGRRELMEYGNHHLAV	←	←
Mch7126 #	→	MRAAISLLVSSLVFGSLASNHQAMMNHSSYQALTEVESEQLL-SV-----	RPKPKPNQPEKPAHRGSGRRELMEYGNHHPAV	←	←
Has12170 #	→	MRATISLLITSLVFGSLAFNCQAMANRLSNLFLSYDDSEQFI-SVK-----	EKKPKRNTNQPELPIPHRGSGRRELMOYVGQTPAV	←	←
Tol9009 #	→	MRATISLLITGLVLSLAFNFQAIANCLSNLLSFCDSQQLI-SAK-----	PQSSKPSQDMPVPHRGSGRKQLMQYV	←	←
Cal336-3 +	→	MRSAISLLVTSALLSSIVVNYELVANKLDIFQSSTEKH-QVL---SK-----	NPPKSRYRGSGRIRRETISFLELR (+36aa)	←	←
Cal6303 #	→	MRVAISLLATTFVLGSLFAINNQQQTFNFKT-----EVLV-SAK-----	PKTNTKPKSSKRPERPEYRGSGRREL	←	←
Cal7103 +	→	MRTVISLLVTTFFFGLSLSLECNLHSESVTPVTIASR-----ASSK-----	ARPKQEPFPHRGSGRSFTTEYLVSTFFPAV	←	←
Fis3754 #	←	MRAAISLLVTGLLSSLAANSQVTNSLSNMLQSHFSSDLLI-SAKSKQ-----	PKSPYRGSGRDRDRERVSYLLL (+31aa)	←	←
Fis7521 #	←	MRAAISLLVTGLLSSLAANSQVTNSLSNMLQSHFSSDLLI-SAKSKQ-----	PKSPYRGSGRDRDRERVSYLLL (+31aa)	←	←
Fis9339 #	→	MRAAISLLVTGLLSSFAVHSQVTSSLSNMLTSDSNLGLLI-SAKSK-----	PQKSSPYRGSGRDRDRQRVSYLLL (+31aa)	←	←
Hap220 #	→	MRAAISLLVTGLLSSFAVHSQVTSSISDNMLTSHSSSHLLI-SAKSK-----	PQKSSPYRGSGRDRDRQRVSFLLL (+31aa)	←	←
Scy7110 #	←	MRAAVSLLIVGFLCSSFAINNQVNTFSSKYDSQLLILARATR-----	RSSTSQPGGSRSPYRGSGRRELMEFISTTQSDV	←	←
Tol521301 #	→	MRAAVSLLIVGFLCSSFAINNQVNTFSSKYESQLLILARATK-----	KSSTSRSRSGYRGSGRRELIEYISAPQSEV	←	←
Scy61278 #	→	MRAAISFLITGLFFSSLAINTQVPIHVSVDVQLLMAAVG-----NTKK-----	TRKDKYRGSGRIQVLEQIKSTHPVV	←	←
Mas10914 #	←	MRAAISLFISSLGLLGLAVNTQASGIQVNSGIQ-----ELM-SAKKNTNK-----	PTRRYPYRGSGRKEMVQHIEITHPVV	←	←
Tol511288 #	→	MRAAISLLITGLLFGSLAVNSQAPGSPLSNGSQ-----QLM-SAKDNTNK-----	APRKPWRGSGRNKILMESVDSTNPAV	←	←
RicHH01 +*		MHAFILLFFALIVTPLNLNYIQNIGVSPSESDSTVTLVRCRL-----	RRCROYRGSGRMALNGNIAKKTIV	←	←
Riv7116 #	→	MRKAISLLATSIVFGSLAVNFQIGNSLETETMFTSVEQELL-----	SRSNPRKPRTPHRGSGRREFMGYSNHA	←	←
Mas008 #	→	MRTATSIVFTIFMFGSLAFNAVSTSAQATEQSFIPSDNQELIA-----	NRDSTRPSKGTPEYRGSGRKRFM	←	←

BOrganism^a SP^bDH^c*hetR*

Lep7376 #	←	MTTKNT MV MLFSISLFFSTLSLFGESAQVSDSKSIE--SNLFLSDS-----NSVEIAER RGSGRIE PSATSSVLERHSFS	
Spi9445 #*		MHTYITVVLVLLSLLSIVPAVKAGLTEISTVRE-----PLQISSAE---PSAGSDTCSYDSCSSD RGSGRV VNRYKGHKEFDATKER RGSGR LEEKTPKEMA	
Mic7113 0	→	MSIYTCISYQLISVDTHKDN-----NKS PHRGSGR	→
Cri9333 +		MPLKFLVLCSLVAISVPAIHLDNQYSSSTKLLPHNNDQNLSINAQ-----RPRDQSPHR GTGR RELYQGVAIAHL	→
Osc10802 #	→	MRTQAVIVLSSFLFVGLAVAFSGMRSDSTEL LLP PTTFDFQAQDK-----PDCDDH RGSGRV EECQTPNDSSS (+7aa)	→
Osc10802-b #*		MRVYTPFFLLTLLLGISATFSRANEYRTVSRLOADTAQSAQNVCSPTVTPDDH RGSGR CEQ	
Osc10802-c #*		MRIYTLALSGLLLLGGAVNAQAFELRSSQGDRSDRVQEFSLSQAGNEGGCETNQO-----SGCDEQRSH RGSGR KDQDLNTQQQHSKAF	
Osc6304 +*		MRSYFSIIFCSLFLGLAANFSGRESHLELSRSEFD-IQVL-SARL-----ESGQEI APHRGSGR	
Osc6304-b #*		MRLSTILVLSLTFANLASSAKSYFVDLLATYSEGFSSHASLARFTL P SESSQIN P CETEDSK P G (+32aa) P NC P M MKTHROVGR RGSGR CEP	
Osc6304-c +*		MSIYKCLVLSGLLFLGMANFSGIEYLTSKENKSDA-NAQIA-SA-----DVSRTGTE PHRGSGR	
Gei7105 #	→	MRIIS--LLLSALLLGFVWNSAQ P OSRLSEETV-----KDLL APHRGSGRR LLREDV P SS LL (+31aa)	
Gei7105-b #*		MRIYSS LL SSLLLAGFAANARAI ES VSSNVRIL--DSIEVL-STE-----SINTDT VPHRGSGR	
PhoOSCR #	→	MRSS LV LSALL LL GLGSSFANFSQSKSTEFDSV---AYRGFL-SAQTEQ-----KDEVQ PHRGSGRR RFQSNHTGL D M (+9aa)	
PhoOSCR-b #*		MSIYKTL LL SS LL MGFAVNVQAARVSSDSNYDTL---SQVF-STD-----SSNADT VPHRGSGR	
MicFGP2 #	→	MQTYTAIALLS LL GITLSASAAQALESS LM VET-ATAQ YML -SAQTQQ-----KRERG PERGSGR NL TE PNVYTH PLQDF	→
Osc7112 #	→	MQTYTAIALLS LL GITLSASAAQAFES PL EKLET-ATAQ YML -SAQTQQ-----KGERR PERGSGR GT TE PNVYTH ALQDF	→
Osc7112-b #*		MRVYSSILMSS LL SGTAVHAKS-LETRSTFFAQHKSD PE IL-TAVADTQT F YA-----DNDKDT PPERGSGR	
Tri101 #		MQNYTP II IS FL LLGNTSS Q AL M TAN EL LSANFLTQHAGRN AV NHGD LE TV PS GEG IR KKY K FS II PTSGQDNQDL I PHRGSGR	→
Pla126-8 #	→	MQTYTSLVLSVCLSVGLTTNALAAGSASNKLS D VLS-TSQ LL -SARTG-----LNGPYEPDR GG GRDFQDTTHSNDV N Q L	
Pla126-8-b #*		MRIYSTIL LS T LL V SAM TRQCLN P ININLSSK---SE V VAF L ATE-----TSTDIDTQGL PHRGSGR	
Pla406 #	→	MQTYTSLVLSVCLSVGLTTNALAAGSASNKLS D VLS-TSQ LL -SARTG-----LNGPYEPDR GG GRDFQDTTHSNDV N Q L	
Pla406-b #*		MRIYSTIL LS T LL V SAM TRQCLN P ININLSSK---SE V VAF L ATE-----TSTDIDTQGL PHRGSGR	
Pla15 #	→	MQTYTSLVLSVCLSVGLTANALAASSASNKLS D VLS-TSQ LL -SARTG-----LNGPYEPDR GG GRDFQDTTHSNDV N Q L	
Pla15-b #*		MRIYSTIL LS T LL V SAM TRQCLN P ININLSSK---SE V VAF L ATE-----TSTDIDTQGL PHRGSGR	
Pla407 #	→	MQTYTSLVLSVCLSVGLTTNALAASSASNKLS D VLS-TSQ LL -SARTG-----LNGPYEPDR GG GRDFQDTTHSNDV N Q L	
Pla407-b #*		MRIYSTIL LS T LL V SAM TRQCLN P ININLSSK---SE V VAF L ATE-----TSTDIDTQGL PHRGSGR	
Arth39 #	→	MKLN PT FG S M LL LL GIAS P AKAME L AP T Q Q LES M T N Q YML -SAQTE---HHGSR S P WQ G T P RR G FA E T F EQ T S P ES L F PHRGSGR	→
Arth39-b #*		MRLSS LI M L SGLALINLANQPKLETTAT P SDSYHES I YELVQVND N Q I -----PETESS P AP PHRGSGR K G	
Arth328 #	→	MKLN PT FG S M LL LL GMSSAAQ A ME IR PS R Q Q LES M T N Q YML -SAQTE---HHGSR S P WQ G T P RR G FA E T F EQ T S P ES L F PHRGSGR ANQ	→
Arth328-b #*		MRLSS LI M L SGLALINLANQPKLETTAT P SESSHES I YELVQVND N Q I -----PETESS P T PHRGSGR K G	
Arth8005 #	→	MKLN PT FG S M LL LL GMSSAAQ A ME IR PS R Q Q LES M T N Q YML -SAQTE---HHGSR S P WQ G T P RR G FA E T F EQ T S P ES L F PHRGSGR ANQ	→
Arth8005-b #*		MRLSS LI M L SGLALINLANQPKLETTAT P SESSHES I YELAQVND N Q I -----PETESS P T PHRGSGR K G	
Lyn8106 #	→	MKLTIVF AL TS LL FLGITSQVQAANHQSTAFLE L -ENQ KY M -SAHL---KNNKGS D P S RGSGR R N F V EN F T V NS E NN S I F F GRSGR	→
Lyn8106-b #*		MRFYTFILLF S LLS I AYADA I K G VQAASS LL IAQDSSE I NC T -----TN C P D PHRGSGR	
LynBLJ #	→	MK P TTIF AL AS LL FLGITSQVQAANHQSTAFLE L -ENQ KY M -SAQL---KNHGSS D P S RGSGR - F V E N F T A NS G D N F I F L PHRGSGR	→
LynBLJ-b #*		MRFYTLILF S LLS M ASADA I K G VQAASS LL IAQDSSE I NC N -----SN C P P G H RGSGR	
Gei7407 #		MSTHATIALSS LL LL LL TVLAPWQ E GRRLTASTD-----SEQ M D H RGSGR VSS S T P SHY L ALS	→
Osc12 #		MDFLTSTLLAGVLLTIS V M I PPATAQ P LSANRS A WQ L S P VVD V A P M H V K -----TGGQ P K H RGSGR REL N F V E P V I G	→
Lep6306 ~	→	MRAQTL V ALF S W L I G AV I GSY T TER F FPAA S Q L NA-----P Q L I P H T L A H RGSGR I E T Q F L Q M N F L I	→
Lep2104 +	→	MRAQTL V ALF S W L I G AV I GSY T ER F SPAA Q L N AS D S-----Q F Q I L A H RGSGR I E T Q F D F I Q A P M	→
Lep3755 +	→	MRAQTL V ALF S W L I G AV I GSY T ER F SPAA Q L N AS E S-----V E Q V L A H RGSGR I E T Q W E Y M T V P M	→
Lep6406 #	→	MLHK L HP T K R L V ALAT L GY L G V AL G LS G S A IL P TANRA A E Q A Q H RGSGR L T S F O P T S V A E S Y A H RGSGR L G Q E D E P E I R A T V A W RGSGR I S N D A A G N P O A N S	→
Syn7335 +	→	MLNTYYYSS R FA I AY L T G ALL C Y A F S II S A A G L P T G A LN T L-----E S PR R D H N Q P T A G S P E E S G I G F T I T H RGSGR I V P I R I	→
LepHIJ #	→	MRI S L P V M S V A A T I SV F SL L T L A T AP N LL S -----E R G S G R I Q T E H M RGSGR I G T E Q T Y R G S G R F N H D T V D Q A Y RGSGR L S A	→
ProH9006 +	→	M N L I G A L S P L F S V Q F L P I P A T P E Q N S S P F L N L ----S L F -S A---P T S T P P L A I Q T I Q T D I S Q G V P D R G S W V V R M Q Q G I L A I Q R G S G R R E L A L G L	→
ProH9006-b 0		M A M L H S K S L I F R V P S P F S D-----Y R G S G R E V C	→