

		E1	E2 junction
ENPP3-E1			
[P] <i>P. molurus</i> (Python)	METLSAE--ETTLGEKSNLEIDCQTETLVKKSTLRKYKILCA	VL	FISLVVVALGGLGGLGKKSVEPQ
[V] <i>P. flavoviridis</i> (Habu)	MEMFPEDKDETEMENKSTSDLDIFQKETIIKRSTLRKYKILCV	VL	FISLVAVALGGLGGLGKKSVQPQ
[V] <i>B. jararaca</i> (Jararaca)	MEMFPEDTDETEMGEKSTLDLIDFQTERIIKRSTLRNYKILCV	VL	FISLVAVALGGLGGLGKESVQPQ
[V] <i>P. mucrosquamatus</i> (TH)	MEMFPEDKDETEMEGKSTADLIDFQTETIIKRSTLRKYKILCV	VL	FISLVAVALGGLGGLGKKSVQPQ
[V] <i>C. viridis</i> (PR)	MEMFPEDKDETEMGEKRTLDLVDFQTERIIKRSTLRKYKILCV	VL	FISLVAVTLGGLGGLGKEPVQPQ
[V] <i>C. tigris</i> (TR)	MEMFPEDKDETEMGEKSTLDLVDFQTERIIKRSTLRKYKILCV	VL	FISLVAVTLGGLGGLGKESVQPQ
[H] <i>M. thanlyinensis</i>	METISAN--EIDMGEKSIWD---HSEPIINKSTLRKYKILCV	VL	FISLVAVALGGLGGLGKKSVQPQ
[H] <i>H. buccata</i> (MWS)	METISAN--EIDMGEKSTLDLKDSHSEPIIKRSTLRKYKILCV	VL	FISLVAVALGGLGGLGKESVQ--
[C] <i>T. sirtalis</i> (CGS)	MEMLVAD--KTHMGERSTLDLTDSHTETIIKRSTLRKYKILCV	VL	FISLVAVALGGLGGLGKDSQQ--
[C] <i>P. guttatus</i> (CS)	METIAAD--ETNFGEKSTLDLIDSHSETMIKRSTLRKYKILCV	VL	FISLVAVALGGLGGLGKEPEPPE
[C] <i>P. catenifer</i> (GS)	METIAAD--KTNFGEKSTLDLIDSHSEKMIKRSTLRKYKILCV	VL	FISLVAVALGGLGGLGKEPESPE
[C] <i>P. obsoletus</i> (WRS)	METIAAD--ETNFGEKSTLDLIDSHSETMIKRSTLRKYKILCV	VL	FISLVAVALGGLGGLGKEPESPE
[C] <i>T. elegans</i> (WTGS)	METLVAD--KTHMGERSTLDLTDSHTETIIKRSTLRKYKILCV	VL	FISLVAVALGGLGGLGKDSQQQ-
[C] <i>R. subminiatus</i> (RK)	METLAAD--ETDMGEKSTLDLIHNSSETIIKKSTLRKYKILCV	VL	FISLVAVTLGGLGGLGKDSQQQQ
[C] <i>T. conanti</i>	METLVAD--KTHMGERSTLDLTDSHTETIIKRSTLRKYKILCV	VL	FISLVTVALGGLGGLGKDSQQQ-
[C] <i>T. nigriceps</i> (PBS)		DLVDFQAEIRI	KKSTLRKYKILCV
[D] <i>H. nasicus</i> (WHS)	METLAVD--EVDMGEKSTLDLIDSQSETIIKRSTLKKYKILCV	VL	FISLVAVALGGLGGLGKESEQPQ
[D] <i>C. lineatus</i>	METFAAD--ETDMGEKSTLDLVDSHSETIIKRSTLRKYKILCV	VL	FISLVAVALGGLGGLGKESVQPQ
[D] <i>H. leopardinus</i>	MQTLTAD--ETDMGENSTLDLVDSHSETIIKRSTLRKYKILCV	VL	FISLVAVALGGLGGLGKESVQPQ
[L] <i>P. subtaeniatus</i> (WYSS)	METLPAE--ETEIGEKSLLDLDLIDSHPEKIVKRSTLRKYQILCL	VL	FISLVAVALGGLGGLGKLEPLTPQ
[L] <i>P. schokari</i> (SSR)	METLPAE--ETEIGEKSLLDLDLIDSHPEKIVKRSTLRKYQILCL	VL	FISLVAVALGGLGGLGKLEPLTPQ
[L] <i>M. monspessulanus</i> (MS)	VEMLPAE--ETDMGEKNLLDLDLIDSHSETIIVKRSTLRKYKILCV	VL	FISLVAVALGGLGGLGKQKEPLPPQ
[E] <i>O. hannah</i> (KC)	METLPED--QTMGEKSTLDLIDSHTESVIKRSTLRKYKILCV	VL	FISLVAVALGGLGGLGKPSKQPQ
[E] <i>N. scutatus</i> (MTS)	METLPAD--QTMGEKSTLELLDFHTETVIKKSTLRKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPQ
[E] <i>L. colubrina</i> (YSK)	METLPAD--QTMGEKSTLELLDSHTETVIKKSTLRKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPQ
[E] <i>W. aegyptia</i> (DC)	METLPED--QTMGEKSTLDLIDSHSETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>H. haemachatus</i> (RH)	METLPED--QT---EKSTLDLIESHNETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. annuliifera</i> (SC)	METLPEN--ETDMGEKSTLDLIDSHYETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. atra</i> (CC)	METLPEN--ETDVGEKSTLDLIDSHYETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. haje</i> (EC)	METLPEN--ETDMGEKSTLDLIDSHYETVIKRSTLMKYKILCA	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. kaouthia</i> (MC)	METLPEN--ETDVGEKSTLDLIDSHYETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. naja</i> (IC)	METLPEN--ETDVGEKSTLDLIDSHYETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. nigricollis</i> (BSC)	METLPEN--ETDMGEKSTLDLIDSHYETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. nivea</i> (Cape Cobra)	METLPEN--ETDMGEKSTLDLIDSHYETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. pallida</i> (RSC)	METLPEN--ETDMGEKSTLDLIDSHYETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. siamensis</i> (TSC)	METLPEN--ETDVGEKSTLDLIDSHYETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. subfulva</i> (BFC)	METLPEN--ETDMGEKSTLDLIDSHYETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. sumatrana</i> (ESC)	METLPEN--ETDVGEKSTLDLIDSHYETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. mossambica</i> (MSC)	METLPEN--ETDMGEKSTLDLIDSHYETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. nubiae</i> (NSC)	METLPEN--ETDMGEKSTLDLIDSHYETVIKRSTLMKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPL
[Hy] <i>H. curtus</i> (SSS)	METLPAD--QTDQGEKSTLELLDSHTETVIKKSTLKKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPQ
[Hy] <i>H. cyanocinctus</i> (BSS)	METLPAD--QTDKGEKSTLELLDSHTETVIKKSTLKKYKILCV	VL	FISLVAVALGGLGGLGKQSKQPQ
PDE-E1a (Conserved in all snake genomes but not expressed in Elapidae and Hydrophiidae)			
[P] <i>P. molurus</i> (Python)		MTQQK	VL
[V] <i>P. flavoviridis</i> (Habu)		MIQQK	VL
[V] <i>B. jararaca</i> (Jararaca)		MIQQK	VL
[V] <i>P. mucrosquamatus</i> (TH)		MIQQK	VL
[V] <i>C. viridis</i> (PR)		MIQQK	VL
[V] <i>C. tigris</i> (TR)		MIQQK	VL
[H] <i>M. thanlyinensis</i>		MSLPK	VL
[H] <i>H. buccata</i> (MWS)		MILPK	VL
[C] <i>T. sirtalis</i> (CGS)		MSLQK	VL
[C] <i>P. guttatus</i> (CS)		MSLQK	VL
[C] <i>P. catenifer</i> (GS)		MSLQK	VL
[C] <i>P. obsoletus</i> (WRS)		MSLQK	VL
[C] <i>T. elegans</i> (WTGS)		MSLQK	VL
[C] <i>R. subminiatus</i> (RK)		MSLQK	VL
[C] <i>T. conanti</i>		MSLQK	VL
[C] <i>T. nigriceps</i> (PBS)		MIQQK	VL
[D] <i>H. nasicus</i> (WHS)	MLKFLRTHPK	VL	FISLVAVALGGLGGLGKESEQPQ
[L] <i>P. subtaeniatus</i> (WYSS)	MLKFLRTHPK	VL	FISLVAVALGGLGGLGKEPLTPQ
[L] <i>P. schokari</i> (SSR)	MLKFLRTHPK	VL	FISLVAVALGGLGGLGKEPLTPQ
[L] <i>M. monspessulanus</i> (MS)		MSLQK	VL
[E] <i>O. hannah</i> (KC)*		MIMQN	VL
[E] <i>N. scutatus</i> (MTS)*		M--QK	VL
[E] <i>L. colubrina</i> (YSK)*		MIMQK	VL
[E] <i>N. naja</i> (IC)*		MVMQK	VL
[Hy] <i>H. curtus</i> (SSS)*		M--QK	VL
[Hy] <i>H. cyanocinctus</i> (BSS)*		M--QK	VL
PDE-E1b (Only found in the genomes and transcriptomes of Elapidae and Hydrophiidae)			
[E] <i>O. hannah</i> (KC)	MRCKK	VL	FISLVAVALGGLGGLGKPSKQPQ
[E] <i>N. scutatus</i> (MTS)	RCKKK	VL	FISLVAVALGGLGGLGKQSKQPQ
[E] <i>L. colubrina</i> (YSK)	MRYYK	VL	FISLVAVALGGLGGLGKQSKQPQ
[E] <i>W. aegyptia</i> (DC)	MRCKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>H. haemachatus</i> (RH)	MRCKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. annuliifera</i> (SC)	MRCKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. atra</i> (CC)	MRFKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. haje</i> (EC)	MRCKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. kaouthia</i> (MC)	MRFKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. naja</i> (IC)	MRFKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. nigricollis</i> (BSC)	MRCKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. nivea</i> (Cape Cobra)	MRCKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. pallida</i> (RSC)	MRCKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. philippinensis</i> (PSC)	MRFKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. siamensis</i> (TSC)	MRFKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. subfulva</i> (BFC)	MRCKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. sumatrana</i> (ESC)	MRFKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. mossambica</i> (MSC)	MRCKK	VL	FISLVAVALGGLGGLGKQSKQPL
[E] <i>N. nubiae</i> (NSC)	MRCKK	VL	FISLVAVALGGLGGLGKQSKQPL
[Hy] <i>H. curtus</i> (SSS)	MRCKK	VL	FISLVAVALGGLGGLGKQSKQPQ
[Hy] <i>H. cyanocinctus</i> (BSS)	MRCKK	VL	FISLVAVALGGLGGLGKQSKQPQ

\* Conserved in the genomes but not expressed in the transcriptomes (only selected sequences were shown).

Abbreviations for the common names:

Taiwanese habu (TH), Prairie rattlesnake (PR), Terrestrial rattlesnake (TR), Masked water snake (MWS), Common garter snake (CGS), Corn snake (CS), Gopher snake (GS), Western rat snake (WRS), Western terrestrial garter snake (WTGS), Red-necked keelback (RK), Plain black-headed snake (PBS), Western hognose snake (WHS), Western yellow-bellied sand snake (WYSS), Schokari sand racer (SSR), Montpellier snake (MS), King cobra (KC), Mainland tiger snake (MTS), Yellow-lipped sea krait (YSK), India cobra (IC), Desert cobra (DC), Rinkhals (RH), Snouted cobra (SC), Chinese cobra (CC), Egyptian cobra (EC), Monocled cobra (MC), Black-necked spitting cobra (BSC), Red spitting cobra (RSC), Philippine spitting cobra (PSC), Thai spitting cobra (TSC), Brown forest cobra (BFC), Equatorial spitting cobra (ESC), Mozambique spitting cobra (MSC), Nubian spitting cobra (NSC), Shaw's sea snake (SSS), Blue-banded sea snake (BSS).

Abbreviations for the clades:

Pythonidae (P), Viperidae (V), Homalopsidae (H), Colubridae (C), Dipsadidae (D), Lamprophiidae (L), Elapidae (E) and Hydrophiidae (Hy).