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Supplemental information for

NR3E receptors in cnidarians : a new family of steroid receptor relatives extends the possible mechanisms for ligand binding

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Supplemental Figure 1. NR3E-paraestrol A interaction diagram.

The interactions shown are those mediated by hydrogen bonds, hydrophobic contacts and π - π interaction. Hydrogen bonds with the amino acids from the NR3E binding pocket are indicated by dashed lines between the atoms involved, while hydrophobic contacts are represented by an arc with spokes radiating towards the paraestrol A atoms they contact. The contacted atoms are shown with spokes radiating back. The figure was drafted using LIGPLOT v.4.5.3 and manually edited to add the paraestrol A carbon and ring numbering according to the IUPAC sterol nomenclature.

4	81					
NR3E_Hydra_magnipapillata						
NR3F_Trichoplax_adhaerens		.MTSTF	ASHS	GTPIEP	v	
NR3E_Hydractinia_symbiolongicarpus	••••	• • • • • • • • • • •	••••	• • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • •
NR3E_Aurelia_aurita	•••••	••••	•••••	•••••	•••••	•••••
NR3E_Rhopilema_esculentum	•••••	•••••	•••••	•••••	•••••	•••••
NR3E_POdocoryna_carnea	•••••	•••••	•••••	•••••	•••••	•••••
NR3E_Nahomia_Dijuga NR3E_Chironey_fleckeri	•••••	•••••	•••••	•••••	•••••	•••••
NR3E Alatina alata						
NR3E Morbakka virulenta						
NR3E Tripedalia cystophora						
NR3E Copula sivickisi						
NR3E_Chironex_yamaguchi						
ERRa_Homo_sapiens	• • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • •
ERRb_Homo_sapiens	• • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • • •
ERRg_Homo_sapiens	•••••	••••	•••••	•••••	•••••	•••••
ERR_Drosophila_melanogaster	•••••	•••••	•••••	•••••	•••••	•••••
ERR_Crassostrea_gigas	•••••	• • • • • • • • • • •	•••••	•••••	•••••	• • • • • • • • • • •
NR3D_Crassostrea_gigas	•••••	•••••	•••••	•••••	•••••	•••••
NR3D_Apiysia_callioffica	•••••	•••••	•••••	•••••	•••••	•••••
ER Branchiostoma floridae	•••••	•••••	•••••	•••••	•••••	•••••
ERa Homo sapiens		. MTMTT, HTKA	SGMALLHOTO	GNELEP	T	
ERb Homo sapiens		MDIKNSP	SSL	NSPSS	¥	
SR Branchiostoma floridae		MENOP	NTVTNPMTT.	OGLOP	L	
GR Homo sapiens	PDTKPKIK	DNGDLVLSSP	SNVTLPOVKT	E	K	E
MR Homo sapiens	PIKQESTKHS	CSGTSFKGNP	TVNPFPFMDG	SYF.S	F.MDDKDYYS	LSGILGPPVP
AR Homo sapiens	TKGLEGESLG	CSGSAAAGSS	GTLELPSTLS	LYKSGALDEA	AAYQSRDYYN	FPLAL
PR Homo saniens	DD	CCD	CACCUDITATIC	DEDDCAVD D		LYSDFOPPAL
IN_HOMO_Suprems		••••••••••••••••••••••••••••••••••••••	CASSIFVAVG	DFPDCAIP.P	DALLENDDATE	11001 gi i i i i
rr_nomo_suprens	41	••••••••••••••	CASSIFVAVG	DFFDCAIF.F	DREENDDAIF	21001 gi i i ii
NRSE Hydra magnipanillata	41		CASSIFVAVG	DIPDCAIP.P	MSDVN	PD
NR3E_Hydra_magnipapillata	41	TSASDOL	VETSTAS	SR. LDKGV	MSDYN	RD
NR3E_Hydra_magnipapillata SNR3F_Trichoplax_adhaerens NR3F_Hydractinia_symbiolongicarpus	41	TSASDQL	VFTSTAS	.SRLDKGV	MSDYN DSGTTT.SDS	RD
5 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita	41	TSASDQL	VFTSTAS	.SRLDKGV	MSDYN DSGTTT.SDS	RD KN
5 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum	41	TSASDQL	VFTSTAS	.SRLDKGV	MSDYN DSGTTT.SDS	RD KN
5 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E Podocoryna carnea	41	TSASDQL	VFTSTAS	.SRLDKGV	MSDYN DSGTTT.SDS	RD KN
5 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga	41	TSASDQL	VFTSTAS	SRLDKGV	DALFRODATT	RD KN
5 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podcoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri	41	TSASDQL	VFTSTAS	SR.LDKGV	MSDYN DSGTTT.SDS DSAELVVPFK	RD KN
5 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata	41	TSASDQL	VFTSTAS	SR.LDKGV	DAEFRODATF	RD KN
5 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Dodocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta	41	TSASDQL	VFTSTAS	SR.LDKGV	DALFINDATI MSDYN DSGTTT.SDS DSAELVVPFK DSAELVVPFK	RD KN
5 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Ncdilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora	41	TSASDQL	VFTSTAS	.srLDKGV	DALFINDATI	RD KN
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5 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Nhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens	41	TSASDQL	VFTSTAS.	SR.LDKGV	DALFINDATI	RD KN KR
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5 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRD_Homo_sapiens ERR_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae	41	TSASDQL	VFTSTAS.		JALFINDAIF	RD KN
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5 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Nanomia_bijuga NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Chironex_fleckeri NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRg_Homo_sapiens ERRg_Homo_sapiens ERRg_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens ERD_Homo_sapiens ERD_Homo_sapiens ERD_Homo_sapiens ERD_Homo_sapiens RB_Homo_sapiens RB_Homo_sapiens MR_Homo_sapiens	41	TSASDQL	VFTSTAS VFTSTAS VVQQQQPS	SR.LDKGV SR.LDKGV 	MSDYN DSGTTT.SDS DSAELVVPFK DSAELVVPFK DSVELCLPES DSVELCLPES DSVELCLPES LGEVYL.SS .HGSIYIPSS RGSIYIPSS KLGTVYCQAS DDGSYYPEAS	RD KN
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Supplemental Figure 2

6	01					
NR3E Hydra magnipapillata		DSYVD	VECVH	OD	EINE	GDKN
NR3F Trichoplax adhaerens		DNIT.LHN	SDRIQPL	PLAGLPI	YTAP	TPAS
NR3E_Hydractinia_symbiolongicarpus		••••	MD		SEA	SHTA
NR3E_Aurelia_aurita	•••••	••••		•••••		•••••
NR3E_Rhopilema_esculentum	••••	••••		•••••		••••
NR3E_Podocoryna_carnea	••••	•••••				
NR3E_Nanomia_bijuga	•••••	NNL.AVFN	SNKMETDEVV	PPFSSKSN	KSES	ES.
NR3E_Chironex_flecker1	•••••	••••		•••••		•••••
NRSE_AIdtind_didtd	•••••	•••••		•••••		•••••
NR3E_MOIDARRA_VIIuienca	•••••					•••••
NR3E_IIIpedalia_Cyscophora	•••••					
NR3E_Chironex_vamaguchi	•••••					
ERRa Homo sapiens		.MSS0V	GTEPLYTKAE	PASPDSP	K	SSE
ERRb Homo sapiens		.MSSD.RHLG	SS.GSFIKTE	PSSPSSGIDA	LSHHSPS	SSD
ERRg Homo sapiens	EELLC	RMSNK.RHI.	SS.SSFIKTE	PSSPASLTDS	VNHHSPG	SSD
ERR Drosophila melanogaster		MS.	GVSILHIKOE	VDTPSASCFS	PSSKSTATOS	TNG
ERR Crassostrea gigas			-MD.DIIKME	PGSPLGLSRC	GHS	LS
NR3D Crassostrea gigas	LTVIQ	GLSDPGG-TV	CRILRESSAA	ASATGDEA	ESMS	ESI
NR3D_Aplysia_californica		.MVSPSP	CMP.LPL	.SGAGGGG	EGTA	SAH
NR3D_Platynereis_dumerilii						
ER_Branchiostoma_floridae		••••	-MAYPDIHII	PPQGQTPR	MTTP	ТКАА
ERa_Homo_sapiens	EGAAY	EFNAAAA-AN	AQYGQTGL	PYGPGSEAAA	FGSNGLG	FPP
ERb_Homo_sapiens	AMTFY	SPAV-MN	YSIPSNVTNL	EGGPGRQ		•••••
SR_Branchiostoma_floridae	NMTQS	QMSQ		PRGNDCAL.R	N.S	STA
GR_Homo_sapiens	NK	MSAI.VHG	S	TSGGQMYHY.	MNTASLS	QQQDQKPI
MR_Homo_sapiens	V			NSGGQSFHYR	IGAQGTISLS	RSARDQSFQH
AR_HOMO_sapiens	SAWAAAAAQC	RYGDLA.LHG	AG	AAGP		
PR_HOMO_Sapiens	AA	PASA.V55	A5	SSGSTLECIL	IKAEG	••••••APPQ
6	61					
6 NR3E Hydra magnipapillata	61 L					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens	61 L					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus	61 L M					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita	61 L M					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum	61 L M 					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea	61 L M 					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga	61 L M S					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri	61 L 					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata	61 L 					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta	61 L 					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3F_Mdractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NB3E_Corula_sinctici	61 L 					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NP3E_Copironex_wamaguchi	61 L					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Rhopilema_esculentum NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi FRBaHomo_sapiens	61 L					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Chironex_fleckeri NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRA_Homo_sapiens	61 L	ETE.				
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRB_Homo_sapiens	61 L					
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3F_Trichoplax_adhaerens NR3E_Aurelia_aurita NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Dolocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRG_Homo_sapiens ERRG_Homo_sapiens ERRG_Homo_sapiens	61 L	ETE. SGGFGL SGSY.SS EROLCSSTT				LG .LS .LS
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Podocoryna_carnea NR3E_Alatina_alata NR3E_Alatina_alata NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRG_Homo_sapiens ERRC_Drosophila_melanogaster ERR Crassostrea_gigas	61 L	.ETE				LG. .LG. .VF.
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Ohironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRB_Homo_sapiens ERRG_Homo_sapiens ERRG_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas	61 L	ETE SGGFGL SGSYSS ERQLCSSTT EESFGR ESHGS	A T D			LG
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRB_Homo_sapiens ERRC_Drasostrea_gigas NR3D_Crassostrea_gigas NR3D_Chivonex_das	61 L	ETESGGFGL SGGFGL SGSYSS ERQLCSSTT EESFGR ESHGS TSTTP	A. T. S. H.			LG.
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERRg_Homo_sapiens ERR_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Aplysia_californica NR3D_Platynereis_dumerilii	61 L					LG
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERRB_Homo_sapiens ERRD_Fosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae	61 L	ETE. SGGFGL SGSY.SS ERQLCSSTT EESF.GR E.SHGS T.STTP SVHGMRQNGR	A S H			LG. MN. LS. VF. HS. AG.
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERR_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERRa_Homo_sapiens	61 L	ETESGGFGL SGGYSS ERQLCSSTT EESFGR ESHGS TSTTP SVHGRRQNGR LLHPPP	A			LG.
6 NR3E_Hydra_magnipapillata NR3F_TrichOplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRP_Homo_sapiens ERR_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens	61 L	ETE SGGFGL SGSYSS ERQLCSST EESFGR ESHGS TSTTP SVHGMRQNGR LLHPPP LWPTPG	A. T. D. H. E. Q. H.			LG
6 NR3E_Hydra_magnipapillata NR3F_TrichOplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Chironex_fleckeri NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRB_Homo_sapiens ERRC_Drassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae	61 L	ETE SGGFGL SGGFGL SGSYSS ERQLCSSTT EESFGR ESHGS TSTTP SVHGMRQNGR LLHPPP LWPTPG VVRPYYSPHR	A. T. S. D. H. E. Q. H. P.			LG.
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens ERb_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens	61 L		A D E Q P			LG
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3F_Aurelia_aurita NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERRC_rassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens ERA_Homo_sapiens ERB_Homo_sapiens SR_Branchiostoma_floridae GR_Homo_sapiens MR Homo_sapiens MR_Homo_sapiens	61 L		A			LG. MN. LS. VF. HS. AG. CSG. DDNL DLS. SRR.
6 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Chironex_yanaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERR_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER Branchiostoma_floridae ERA_Homo_sapiens SR_Branchiostoma_floridae GR_Homo_sapiens MR_Homo_sapiens AR_Homo_sapiens	61 L	ETE SGGFGL SGSYSS .ERQLCSSTT EESFGR ESHGS TSTTP SVHGMRQNGR LLHPPP LWPTPG VVRPYYSPHR S.ENWNRC. V.ESWKSH. S.SSWHTLF	A	CGGGGGGGGGG		LG.

7	21					
NR3E_Hydra_magnipapillata	PINTSS	-SNI	PRVIE-	DTIN-I	I	
NR3F Trichoplax adhaerens	CGMLRP	.K.Q	Y	ASK	SIP	VVP
NR3E Hydractinia symbiolongicarpus	VLEKM		EVK	EQVK.V	E	
NR3E Aurelia aurita				SALK.M	D	
NR3E Rhopilema esculentum	AFGRH	.ESS	LILTK.	SALK.M	D	
NR3E Podocoryna carnea					–	
NR3E Nanomia bijuga	ANV		NNQFN.	EDAQ.M	K	
NR3E Chironex fleckeri	MMD		MQ.	PTQ	G	
NR3E Alatina alata					–	
NR3E Morbakka virulenta			MQ.	STQ	G	
NR3E Tripedalia cystophora	MD		LP.	HTQ	G	
NR3E Copula sivickisi			MP.	HTQ	G	
NR3E Chironex yamaquchi	MD		MQ.	PTQ	G	
ERRa Homo sapiens				PP.VA.	–	LAPGP
ERRb Homo sapiens	THAN	GL		SPP.MF.	AGAG	LGG
ERRq Homo sapiens	GHQN	GL		SPP.LY.	PSAP	ILGGS
ERR Drosophila melanogaster	CDLHNVSL	SNDG	DS	L.KGSG.TS.	GGNG	GGGGGG
ERR Crassostrea gigas	ADYNNDDY	G.DG	SYQGNS	ANSG.NI.	SPCS	IDDSS
NR3D Crassostrea gigas	GMVPQGS	FLSM	YMMHN	Q.VPSS.TTL	EFRDHDGR	ILPLLDP
NR3D Aplysia californica	SGTLPH		NFLMDV	H.GPGT.LG.	–	ASP
NR3D Platynereis dumerilii	MADD	QG	YT		–	PQR
ER Branchiostoma floridae	NGMMOO	.HHH	DILTL	H.NGGR	OVG	OVGDL
ERa Homo sapiens	FLOPHGO	QV	YYL.N	E.PSGY.T	.VREAGPP	AF.YRPN
ERb Homo sapiens	LVVH-RO	L	HLYA.P	O.KSPW.C	.EARSLEH	TLPVNRE
SR Branchiostoma floridae	0P	OAAM	YARNY	TONMEVRT	AVTDPOMGAW	NRMOOPVYEE
GR Homo sapiens	TSL	GTLN	FPGRTV	F.SNGY.SS.		
MR Homo sapiens				SDGY.PV.	–	
AR Homo sapiens	APYGY.RPPO	GLAGOESDFT	APDVWYPGGM	VSRVPY.PSP	TCVKSEMGPW	MDSYSGPY
PR Homo sapiens	PAL	GL.G	LPOLGYOAAV	L.KEGL.PO.	–	VYPPY
			k k	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	חפח	
7	81			~ ~ ~ ~ ~ ~ ~ ~ ~	DBD)
7 NR3E Hydra magnipapillata	81	SSSPPSE-KG	LVQNKRPMTN	ARHAVPMLCL	DBD VCTDKASGYH	YGVPS <mark>C</mark> EG <mark>C</mark> K
7 NR3E_Hydra_magnipapillata NR3F Trichoplax adhaerens	81	SSSPPSE-KG AVIV	LVQNKRPMTN SVPNLEH	ARHAVPMLCL GTFSQNQA	DBD VCTDKASGYH	YGVPSCEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E Hydractinia symbiolongicarpus	81	SSSPPSE-KG AVIV .ERQP.R-	LVQNKRPMTN SVPNLEH -ANLQSRLQS	ARHAVPMLCL GTFSQNQA NK.DQAFV	DBD VCTDKASGYH G.RL. R.	YGVPS <mark>CEGC</mark> K
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita	81	SSSPPSE-KG AVIV .ERQP.R- K	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY	ARHAVPMLCL GTFSQNQA NK.DQAFV KDGEM.FV	DBD VCTDKASGYH G.RL. R G.S	YGVPSCEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum	81	SSSPPSE-KG AVIV .ERQP.R- K K	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY SCPGF	ARHAVPMLCL GTFSQNQA NK.DQAF.V KDGEM.F.V KDGDI.F.V	DBD VCTDKASGYH .G.RL. .R G.S G.S.	YGVPSCEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea	81	SSSPPSE-KG AVIV .ERQP.R- K K	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY SCPGF	ARHAVPMLCL GTFSQNQA NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V	VCTDKASGYH .G.RL. .R G.S G.S .R.	YGVPSCEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga	81	SSSPPSE-KG AVIV ERQP.R- K K VKETNP.P-	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY SCPGF 	ARHAVPMLCL GTFSQNQA NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V	DBD VCTDKASGYH .G.RL. .G.S. .G.S. .R. .A.L.	YGVPSCEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri	81	SSSPPSE-KG AVIV .ERQP.R- K K .VKETNP.P- A	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY SCPGF 	ARHAVPMLCL GTFSQNQA NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V	DBD VCTDKASGYH . G.R L. 	YGVPSCEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata	81	SSSPPSE-KG AVIV .ERQP.R- K K .VKETNP.P- A	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY SCPGF CDTQES	ARHAVPMLCL GTFSQNQA NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V	DBD VC TDKASGYH 	YGVPSCEGCK L. A A A A A A
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta	81	SSSPPSE-KG AVIV .ERQP.R- K K .VKETNP.P- A T	LVQNKRPMTN 	ARHAVPMLCL GTFSQNQA. NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V STGNS.F.V	DBD VCTDKASGYH G.RL. G.S. A.L. G.T. G.T.	YGVPSCEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora	81	SSSPPSE-KG AVIV .ERQP.R- K K .VKETNP.P- A T T	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY SCPGY CDTQES CDTQES CDSQ.V	ARHAVPMLCL GTFSQNQA NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V STGNS.F.V SHGSA.F.V	DBD VCTDKASGYH RL. R. 	YGVPSCEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi	81	SSSPPSE-KG AVIV ERQP.R- K K VKETNP.P- A T T T	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY 	ARHAVPMLCL GTFSQNQA NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V STGNS.F.V SHGSA.F.V SHGSA.F.V	DBD CTDKASGYH G.RL. G.S. G.S. G.S. G.T. G.T. G.T. G.T.	YGVPSCEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi	81	SSSPPSE-KG AVIV .ERQP.R- K K .VKETNP.P- A T T A	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY SCPGF CDTQES CDTQES CDSQ.V CDSQ.V CDSQ.V	ARHAVPMLCL GTFSQNQA. NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V NTQRAF.V RHGNS.F.V STGNS.F.V SHGSA.F.V RHGNS.F.V RHGNS.F.V	DBD VCTDKASGYH .G.RL. .R. .G.S. .A.L. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T.	YGVPSCEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens	81	SSSPPSE-KG AVIV K K VKETNP.P- A T T	LVQNKRPMTN 	ARHAVPMLCL GTFSQNQA. NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V STGNS.F.V SHGSA.F.V SHGSA.F.V RHGNS.F.V LSSLPKR.	DBD VCTDKASGYH G.RL. G.S. A.L. G.T. G.T. G.T. G.T. G.T. G.T. G.T. G	YGVPSCEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens	81	SSSPPSE-KG AVIV .ERQP.R- K VKETNP.P- A T T EEEDGEGA. YEDCA.G.IM	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY SCPGY CDTQES CDTQES CDSQ.V CDSQ.V CDSQ.V PGEQGGGKLV EDSAIKCEYM	ARHAVPMLCL GTFSQNQA NK.DQAF.V KDGDI.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V STGNS.F.V SHGSA.F.V SHGSA.F.V RHGNS.F.V LSSLPKR.L LNAIPKR.	DBD VCTDKASGYH . G.R L. . R. . G.S. . A.L. . G.T. . G.	YGVPS CEGCK . L . A . A . A . A . A . A . A . A
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRG_Homo_sapiens	81	SSSPPSE-KG AVIV ERQP.R- K VKETNP.P- A T T EEEDGEG.A. YEDCA.G.IM YDDCS.T.IV	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY SCPGY CDTQES CDTQES CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V EDSAIKCEYM EDSAIKCEYM	ARHAVPMLCL GTFSQNQA NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V SHGSA.F.V SHGSA.F.V SHGSA.F.V LSSLPKR. LNSLPKR.L	DBD VCTDKASGYH .G.RL. G.S. G.S. A.L. G.T. G.T. G.T. G.T. G.T. G.T. G.T. G	YGVPSCEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Chironex_fleckeri NR3E_Chironex_virulenta NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRB_Homo_sapiens ERRG_Homo_sapiens ERRG_Homo_sapiens	81 	SSSPPSE-KG AVIV ERQP.R- K K VKETNP.P- A T T EEEDGEG.A. YEDCA.G.IM YDDCS.T.IV	LVQNKRPMTN 	ARHAVPMLCL GTFSQNQA. NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V RHGNS.F.V STGNS.F.V SHGSA.F.V SHGSA.F.V SHGSA.F.V RHGNS.F.V LSSLPKR. LNAIPKR. V.DELRR.	DBD VCTDKASGYH .G.RL. .R. .G.S. .G.S. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T.G.T	YGVPSCEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRg_Homo_sapiens ERR_Drosophila_melanogaster ERR_Crassostrea_gigas	81 APTRCLPGHK TPCRKS GPVRKL GTSGG. SPIDTSKLDF	SSSPPSE-KG AVIV .ERQP.R- K VKETNP.P- A T T EEEEDGEG.A. YEDCA.G.IM YDDCS.T.IV 	LVQNKRPMTN 	ARHAVPMLCL GTFSQNQA. NK.DQAF.V KDGEM.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V STGNS.F.V SHGSA.F.V SHGSA.F.V SHGSA.F.V SHGSA.F.V LSSLPKR. LNAIPKR. V.DELRR. NIELPKR.	DBD VCTDKASGYH G.RL. G.S. A.L. G.T. G.T. G.T. G.T. G.T. G.T. G.T. G	YGVPS CEGCK . L
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRA_Homo_sapiens ERRB_Homo_sapiens ERRG_Homo_sapiens ERRG_Homo_sapiens ERRG_Crassostrea_gigas	81 APTRCLPGHK TPCRKS GPVRKL GTSGG SPIDTSKLDF SLF	SSSPPSE-KG AVIV .ERQP.R- K VKETNP.P- A T T EEEDEGEGA. YEDCA.G.IM YDDCS.T.IV 	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGF CDTQES CDTQES CDTQES CDSQ.V CDSQ.V CDSQ.V CDSQ.V EDSAIKCEYM EDPQTKCEYM NASAGAGSGS ITNSINCDQE DGRKLKHGAV	ARHAVPMLCL GTF SQNQA NK. DQAF. V KDGDI.F. V KDGDI.F. V SKQDQ.F.V .NTQRAF. V RHGNS.F. V STGNS.F.V SHGSA.F. V SHGSA.F. V SHGSA.F. V LSSLPKR. LNSMPKR. LNSMPKR. NIELPKR. SA.GPNK.Q	DBD VCTDKASGYH G.RL. G.S. G.S. A.L. G.T. G.T. G.T. G.T. G.T. G.T. G.T. G	YGVPS CEGCK . L . A . A . A . A . A . A . A . A
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Nanomia_bijuga NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Alatina_alata NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRB_Homo_sapiens ERRB_Homo_sapiens ERRB_Homo_sapiens ERRB_Torsophila_melanogaster ERR_Crassostrea_gigas NR3D_Aplysia_californica	81 APTRCLPGHK TPCRKS GPVRKL GTSGG SPIDTSKLDF SL SL	SSSPPSE-KG AVIV .ERQP.R- K VKETNP.P- A T T EEEDGEG.A. YEDCA.G.IM YDDCS.T.IV 	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY SCPGY CDTQES CDTQES CDSQ.V CDSQ.V CDSQ.V CDQES PGEQGGGKLV EDSAIKCEYM EDSAIKCEYM NASAGAGSGS ITNSINCDQE DGRKLKHGAV MK.EVGGAVP	ARHAVPMLCL GTFSQNQA NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V SHGSA.F.V SHGSA.F.V SHGSA.F.V LNSLPKR.LNAIPKR.LNSMPKR.V LNSLPKR.S.F.V LNSLPKR.S. LNSMPKR.S. SA.GPNK.Q GSSIQAK.Q	DBD VCTDKASGYH .G.R.L. .G.S. .G.S. .G.S. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T.	YGVPS CEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Chironex_yanaguchi ERR3E_Chironex_yamaguchi ERR4_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERR0_Forsophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Aplysia_californica NR3D_Platynereis_dumerilii	81 APTRCLPGHK TPCRKS GPVRKL GTSGG SPIDTSKLDF SL SL SS SPEEEWGGQT	SSSPPSE-KG AVIV .ERQP.R- K .VKETNP.P- A T T EEEDGEG.A. YEDCA.G.IM YDDCS.T.IV NAT INNI-A.TS FA H	LVQNKRPMTN 	ARHAVPMLCL GTFSQNQA NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V STGNS.F.V SHGSA.F.V SHGSA.F.V SHGSA.F.V LSSLPKR LNAIPKR V.DELRR. NIELPKR SA.GPNK.Q GSSIQAK.Q GDSKDVQK.Q	DBD	YGVPS CEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERR_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae	81 APTRCLPGHK TPCRKS. GPVRKL. GTSGG. SPIDTSKLDF SL SS SPEEEWGQQT SPEEEWGQQT	SSSPPSE-KG AVIV .ERQP.R- K VKETNP.P- A T EEEDGEG.A. YEDCA.G.IM YDDCS.T.IV V	LVQNKRPMTN 	ARHAVPMLCL GTFSQNQA. NK.DQAF. V KDGEM.F. V KDGDI.F. V SKQDQ.F. V .NTQRAF. V RHGNS.F. V SHGSA.F. V SHGSA.F. V SHGSA.F. V SHGSA.F. V SHGSA.F. V LSSLPKR. LNAIPKR. LNAIPKR. V.DELRR. NIELPKR. SA.GPNK.Q GSSIQAK.Q GDSKDVQK.Q LDNKARAV.R	DBD VCTDKASGYH G.RL. G.S. G.S. A.L. G.T. G.T. G.T. G.T. G.T. G.T. G.T. G	YGVPS CEGCK . L. . A. . M. . W. . W.
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRA_Homo_sapiens ERRB_Homo_sapiens ERRB_Homo_sapiens ERRG_Torassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumcilii ER Branchiostoma_floridae ERRA_Homo_sapiens	81 	SSSPPSE-KG AVIV .ERQP.R- K VKETNP.P- A T T EEEDGGGA. YEDCA.G.IM YDDCS.T.IV 	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGF CDTQES CDTQES CDTQES CDSQ.V CDSQ.V CDSQ.V EDSAIKCEYM EDPQTKCEYM NASAGAGSGS ITNS INCDQE DGRKLKHGAV MK.EVGGAVP HANADQLPS IEN.QPQVKE STND.GS.AM	ARHAVPMLCL GTFSQNQA NK.DQAF.V KDGDI.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V STGNS.F.V SHGSA.F.V SHGSA.F.V SHGSA.F.V LSSLPKR. LNSMPKR. LNSMPKR. NIELPKR. SA.GPNK.Q GSSLQAK.Q GDSKDVQK LDNKARAV.R ESAKETRYA	DBD VCTDKASGYH G.RL. G.S. G.S. A.L. G.T. G.T. G.T. G.T. G.T. G.T. G.T. G	YGVPS CEGCK . L . A . A . A . A . A . A . A . A
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRB_Homo_sapiens ERRB_Homo_sapiens ERRC_Tassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Draspiens ERB_Draspiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens	81 APTRCLPGHK TPCRKS GPVRKL GPVRKL SPIDTSKLDF SS SPEEEWGGQT CPDQFSKGR. SDNRRQGRE TLKRKVSGNR	SSSPPSE-KG AVIV .ERQP.R- K VKETNP.P- A T T EEEDGEGA. YEDCA.G.IM YDDCS.T.IV 	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY SCPGY CDTQES CDTQES CDSQ.V CDSQ.V CDSQ.V CDQCS PGEQGGGKLV EDSAIKCEYM EDSAIKCEYM EDSAIKCEYM NASAGAGSGS ITNSINCDQE DGRKLKHGAV MK.EVGGAVP HANADQLPSD IEN.QPQVKE STND.GS.AM ASPVTGP	ARHAVPMLCL GTF SQNQA NK. DQAF. V KDGEM.F. V KDGDI.F. V SKQDQ.F. V .NTQRAF. V RHGNS.F. V STGNS.F. V SHGSA.F. V SHGSA.F. V SHGSA.F. V LNSLPKR LNAIPKR LNAIPKR LNSMPKR V. DELRR NIELPKR SA.GPNK.Q GSSIQAK.Q CDSKDVQK.Q LDNKARAV.R ESAKETKY.A GSKRDAHF A	DBD VCTDKASGYH .G.R.L. .R. .G.S. .G.S. .A.L. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .S.N. .F. .S.N. .F. .S.N. .F. .S.N. .F. .S.N. .F. .S.S. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y.	YGVPS CEGCK L A A A A A A A A A A A A A
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Chironex_yanaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERRC_Tasostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER Branchiostoma_floridae ERA_Homo_sapiens ERB_Homo_sapiens ERRB_Homo_sapiens ERRB_Homo_sapiens ERR_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae	81 	SSSPPSE-KG AVIV K VKETNP.P- A T T EEEDGEG.A. YEDCA.G.IM YDDCS.T.IV INNI-A.TS EPS.IDLG. D.PAS.G.SS RLA C APWTANQQV	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY SCPGY CDTQES CDTQES CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V EDSAIKCEYM EDSAIKCEYM NASAGAGSGS ITNS INCDQE DGRKLKHGAV MK.EVGGAVP HANADQLPSD IEN.QPQVKE STND.GS.AM ASPVTGP KQAANVGTAS	ARHAVPMLCL GTFSQNQA NK.DQAF.V KDGEM.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V STGNS.F.V SHGSA.F.V SHGSA.F.V SHGSA.F.V LSSLPKR. LNSAPKR. V.DELRR. NIELPKR. SA.GPNK.Q GSSIQAK.Q GDSKDVQK.Q LDNKARAV.R ESAKETRY A GSKRDAHF.A PGSGHKPP A	DBD VCTDKASGYH .G.R.L. .G.S. .G.S. .G.S. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .G.T. .S.NF. .S.NF. .S.Y. .S.LF. .S.Y. .S.LF. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.Y. .S.	YGVPS CEGCK
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Copula_sivickisi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERR_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens	81 	SSSPPSE-KG AVIV .ERQP.R- K VKETNP.P- A T T EEEDGEG.A. YEDCA.G.IM YDDCS.T.IV Y AT INNI-A.TS 	LVQNKRPMTN 	ARHAVPMLCL GTF SQNQA. NK. DQAF. V KDGEM.F. V KDGDI.F. V SKQDQ.F. V .NTQRAF. V RHGNS.F. V STGNS.F. V SHGSA.F. V	DBD VCTDKASGYH G.RL. G.S. G.S. A.L. G.T. G.T. G.T. G.T. G.T. G.T. G.T. G	YGVPS CEGCK .L. .A. .A. .A. .A. .A. .A. .A. .A. .A.
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRB_Homo_sapiens ERRC_Tassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER Branchiostoma_floridae ERA_Homo_sapiens ERA_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens SR_Branchiostoma_floridae GR_Homo_sapiens MR_Homo_sapiens	81 	SSSPPSE-KG AVIV .ERQP.R- K VKETNP.P- A T T EEEDGGA. YEDCA.G.IM YDDCS.T.IV NAT INNI-A.TS FA H D.PAS.G.SS RLA C APWTANQQV P.MRDV LEYI.ENV	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGF CDTQES CDTQES CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V CDSQ.V 	ARHAVPMLCL GTF SQNQA NK.DQAF.V KDGDI.F.V KDGDI.F.V SKQDQ.F.V .NTQRAF.V RHGNS.F.V STGNS.F.V SHGSA.F.V SHGSA.F.V SHGSA.F.V LNSLPKR. LNSMPKR. LNSMPKR. LNSMPKR. V.DELRR. SA.GPNK.Q GDSKDVQKQ GDSKDVQKQ GDSKDVQKQ SSIQAK.Q GDSKDVQKQ SSIQAK.Q GDSKDVQKQ SSIQAK.Q GDSKDVQKQ SSIQAK.Q SSIQAKPA SSCHAPPA. SSCHAPPA. SSCHAPPA.	DBD VCTDKASGYH G.RL. G.S G.S G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T	YGVPS CEGCK L A A A A A A A A A A A A A A A A A A
7 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRA_Homo_sapiens ERRD_Homo_sapiens ERRG_Homo_sapiens ERR_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER Branchiostoma_floridae ERA_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens AR_Homo_sapiens AR_Homo_sapiens AR_Homo_sapiens	81 APTRCLPGHK TPCRKS GPVRKL GPVRKL SPIDTSKLDF S SPEEEWGGQT CPDQFSKGR. SDNRRQGGRE TLKRKVSGNR SPQKGTGTEE 	SSSPPSE-KG AVIV .ERQP.R- K VKETNP.P- A T T EEEDGEGA. YEDCA.G.IM YEDCA.G.IM YEDCA.G.IM YEDCA.G.IM YEDCS.T.IV 	LVQNKRPMTN SVPNLEH -ANLQSRLQS SCPGY SCPGY CDTQES CDTQES CDSQ.V CDSQ.V CDSQ.V CDQCS PGEQGGKLV EDSAIKCEYM EDSAIKCEYM EDSAIKCEYM MASAGAGSGS ITNSINCDQE DGRKLKHGAV MK.EVGGAVP HANADQLPSD IEN.QPQVKE STND.GS.AM ASPVTGP KQAANVGTAS SSPPSSS.A SSSTL.SVST RDHVLPID	ARHAVPMLCL GTF SQNQA NK. DQAF. V KDGEM.F. V KDGDI.F. V SKQDQ.F. V .TTQRAF. V RHGNS.F. V STGNS.F. V SHGSA.F. V SHGSA.F. V SHGSA.F. V LSSLPKR. LNAIPKR. LNSMPKR. V.DELRR. NIELPKR. SA.GPNK.Q GSSIQAK.Q GSSIQAK.Q CDSKDVQK.Q LDNKARAV ESAKETRY.A GSKRDAHF.A PCSGHKPP.A TTGPP.K.	DBD VCTDKASGYH G.RL. G.S G.S G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T G.T	YGVPS CEGCK . L. . A. . A.

P-box

	DE	BD				
NR3E Hydra magninanillata	A T	OT.NYKOPASN	NCTINKNCRK	CCOACRICKC	HAVCMSKECK	KUKKBDTB
NR3E_Hydra_Maghipapiilata	AFFRRSDODR	SVA T SGS	R KVD OR	CCQACILIGIC	FD TR. GV	RENENDER
NR3E Hydractinia symbiolongicarpus		D	DR		Decembra	GN. TKRPKOE
NR3E Aurelia aurita	AT	DRG.		R	NEFL	GN. IKKPSR
NR3E Rhopilema esculentum	AT	DRG		R	NEVI	D
NR3E Podocoryna carnea	s.	ES	DR	Q	.DFL	GN.IKRAKQD
NR3E_Nanomia_bijuga	S.	EMG	D	K	QDFL	GN.IKRPKPD
NR3E_Chironex_fleckeri	AA	DR.GN.		R	.EFL	GNIKKNAK
NR3E_Alatina_alata						
NR3E_Morbakka_virulenta	AA	DRGN.		R	.EFL	GNIKKSTK
NR3E_Tripedalia_cystophora	AA	DRGN.		•••••R••	.EFL	GNIKKNAK
NR3E_COpula_sivickisi	••••••AA	DR. GN.		•••••R••	.EFL	GNIKKNAK
RSE_CHITOHEX_yamaguchi	AA	DR. GN.		••••К•• ъ		GNIKKNAK
ERRA_HOMO_Sapiens		NTE C T	E F T PP	AFI	LK L CV	PLDRVRGGRQ
ERRg Homo sapiens	TT G-	NTE S T	E E T RR	S FM	LK L GV	RUDRVRGGRQ
ERR Drosophila melanogaster	TI.G-	NIE.T.N.	E.ERR.	AFO	LLM. L. GV	RLDRVRGGRO
ERR Crassostrea gigas	TI.G-	NIE.SNG	D.E.T.RR.	AFO	LRLR.GV	RLDRVRGGRO
NR3D Crassostrea gigas	I.G-	PVD.VT.	TD.HR	S	YEN.GSQ	RKERKGSISM
NR3D Aplysia californica	I.G-	PVD.IT.	TD.HR	SRR.	YEN.GSQ	RKENSGNT
NR3D_Platynereis_dumerilii	D-	PVD.VT.	D.HR	SFR	LEM.RRE	RRTTKKVKSP
ER_Branchiostoma_floridae	I.QG	.TD.I <mark>.</mark> GT.	QDRNR	SYR	LMT.DGR	RSGE.RGPRR
ERa_Homo_sapiens	I.G-	HND.MT.	QD.NR	SR	YEM.GGI	RKDR.GG.ML
ERb_Homo_sapiens	I.G-	HND.IT.	QD.NR	SR	YEV.CGS	RRERCGY.LV
SR_Branchiostoma_floridae	SH.AHKR-	AHP.VN.	V.DRRLK.	N.PK.	L.MF.EH	A.PN.ATKKK
GR_HOMO_sapiens	VAVEG-	.HL.AGR.	D.1.D.1R	N.PYR	LQA. NL.AR	.TKIKG
MR_Homo_sapiens	VAVEG-	.HL.AGR.	D.I.D.IK	N.PQ.	LUA. NLGAR	.S. LGKLKG
PR Homo sapiens	V AALG-	H L ACR	D TVD TR	N D R	COA VI.CCR	• L. • LGNIKL
<u></u>	P hox	D bo		IN • I • • • • I/ • •	CQIII · VIICOR	•••••••
9	P-box	D-bo	X	11 • 1 • • • • 11 • •	CQ11. VLCCR	
9 NR3E_Hydra_magnipapillata	P-box 01	D-bo	X PRLENPDECI	ESVLT		
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens	P-box 01 D- KYEKPT	D-bo	X PRLENPDECI KSVTSSF.	ESVLT S.STASSFSQ	ADTDK.AEDN	SIQSLKIN
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus	P-box 01 	D-bo TKSKNY SVGQC RRK	PRLENPDECI KSVTSSF. SDKSS.EGFV	ESVLT S.STASSFSQ	ADTDK.AEDN	SIQSLKIN
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita	P-box 01 KYEKPT KQQKP. KSK	D-bo TKSKNY SVGQC RRK	X PRLENPDECI KSVTSSF. SDKSS.EGFV KFDDDE.RK.	ESVLT S.STASSFSQ STN VEPTS	ADTDK.AEDN	SIQSLKIN
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NP3E_Rodocoruma_carpac	P-box 01 KYEKPT KQQKP. KSK	D-bo TKSKNY SVGQC RRK KQ	X PRLENPDECI KSVTSSF. SDKSS.EGFV KFDDDE.RK.	ESVLT S.STASSFSQ .STN VEPTS	ADTDK.AEDN	SIQSLKIN
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NP3E_Nanomia_bijuga	D- KYEKPT KQQKP. KQKP. KQKP.	D-bo TKSKNY SVGQC RRK 	X PRLENPDECI KSVTSSF. SDKSS.EGFV KFDDDE.RK. SDKSSSENFV F ISFS NVV	ESVLT S.STASSFSQ STN VEPTS STN	ADTDK.AEDN	SIQSLKIN
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri	P-box 01 D- KYEKPT KQQKP. KSK KQQKP. KDAAK. GDAAK.	D-bo D-bo SVGQC 	X PRLENPDECI KSVTSSF. SDKSS.EGFV KFDDDE.RK. SDKSSSENFV E.ISES.NVV MSNDED.LKC	ESVLT S.STASSFSQ STN VEPTS .STN .STN	ADTDK.AEDN	SIQSLKIN
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata	P-box 01 D- KYEKPT KQQKP. KSK KQQKP. KDAAK. GDGGKT	D-boo TKSKNY SVGQC RRK KQ KQ KR QRKT HKS.S.KLKQ	X PRLENPDECI KSVTSSF. SDKSS.EGFV KFDDDE.RK. SDKSSSENFV E.ISES.NVV MSNDED.LKC MANDDD.LKC	ESVLT S.STASSFSQ STN VEPTS .STN VEPTS	ADTDK.AEDN	SIQSLKIN
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta	P-box 01 D- KYEKPT KQQKP. KDAAK. GDGGKT SDSGKN	D-boo TKSKNY SVGQC R	X PRLENPDECI KSVTSSF. SDKSS.EGFV KFDDDE.RK. SDKSSSENFV E.ISES.NVV MSNDED.LKC MAHDDD.LKC	ESVLT S.STASSFSQ .STN VEPTS .STN VEPTS VEPTS VEPTS	ADTDK.AEDN	SIQSLKIN
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora	P-box 01 KYEKPT KQQKP. KQQKP. KDAAK. GDGGKT SDSGKN GDSGKN	D-bo D-bo TKSKNY SVGQC RRK RRK QRKT HKS.S.KLKQ HKA.S.KLKQ	X PRLENPDECI KSVTS.SF. SDKSS.EGFV KFDDDE.RK. SDKSSSENFV E.ISES.NVV MSNDED.LKC MANDDD.LKC MAHDDD.LKC	ESVLT S.STASSFSQ .STN VEPTS STN VEPTS VEPTS VEPTS VEPTS	ADTDK.AEDN	SIQSLKIN
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi	P-box 01 KYEKPT KQQKP. KQQKP. KDAAK. GDGGKT SDSGKN GDSGKN GDSAKN	D-bo TKSKNY SVGQC RRK RRK QRKT HKS.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ	X PRLENPDECI KSVTS.SF. SDKSS.EGFV KFDDDE.RK. SDKSSSENFV E.ISES.NVV MSNDED.LKC MANDDD.LKC MSADDD.LKC	ESVLT S.STASSFSQ .STN VEPTS .STN VEPTS VEPTS VEPTS VEPTS VEPTS	ADTDK.AEDN	SIQSLKIN
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi	P-box 01 KYEKPT KQQKP. KQQKP. KDGGKT SDGGKT GDSGKN GDSGKN GDSGKN	D-boo TKSKNY SVGQC RRK KQ 	X PRLENPDECI KSVTS.SF. SDKSS.EGFV KFDDDE.RK. 	ESVLT S.STASSFSQ .STN VEPTS .STN VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS	ADTDK.AEDN	SIQSLKIN
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens	P-box 01 D- KYEKPT KQKP. KQKP. KQKP. KDAAK. GDGGKT GDSGKN GDSGKN GDSGKT KYKRRP	D-boo TKSKNY SVGQC RRK QRKU HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ EVD	X PRLENPDECI KSVTS.SF. SDKSS.EGFV KFDDDE.RK. SDKSSSENFV E.ISES.NVV MSNDED.LKC MANDDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC -P.PF.GPFP	ESVLT S.STASSFSQ .STNVEPTS STN VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS AGP.AVAG	ADTDK.AEDN	SIQSLKIN
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens	P-box 01 D- KYEKPT KQKP. KSK KQQKP. KDAAK. GDGGKT GDSGKN GDSGKN GDSGKN KYKRRP KYKRRP	D-bo D-bo TKSKNY SVGQC RRK QRKT HKS.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKS.S.KLKQ EVD	X PRLENPDECI KSVTS.SF. SDKSS.EGFV KFDDDE.RK. SDKSSSENFV E.ISES.NVV MSNDED.LKC MANDDD.LKC MANDDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSNDED.LKC SSPYLSLQ.	ESVLT S.STASSFSQ STN VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS AGP.AVA.G SPP	ADTDK.AEDN	SIQSLKIN
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Napilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRG_Homo_sapiens	P-box 01 	D-boo TKSKNY SVGQC R	X PRLENPDECI KSVTS.SF. SDKSS.EGFV KFDDDE.RK. SDKSSSENFV E.ISES.NVV MSNDED.LKC MANDDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC -P.PF.GFPF -SSPYLSLQ. -NSPYLNPQL	ESVLT S.STASSFSQ .STN VEPTS VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEPTS.VEP	ADTDK.AEDN	SIQSLKIN SIQSLKIN ALVSHLLVV. KIVSYLLVA. KIVSYLLVA.
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRB_Homo_sapiens ERRB_Homo_sapiens ERRB_Drosophila_melanogaster	F-box 01 KYEKPT KQQKP. KQQKP. KQQKP. KQQKP. KQQKP. SDSGKN GDSGKN GDSGKN GDSGKN KYKRRI KYKRRI KYKRRI	D-boo D-boo TKSKNY SVGQC R	X PRLENPDECI KSVTS.SF. SDKSS.EGFV KFDDDE.RK. SDKSSSENFV E.ISES.NVV MSNDED.LKC MANDDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC -P.PF.GPFP -SSPYLSLQ. -NSPYLNPQL -SSPYLNPQL	ESVLT S.STASSFSQ .STN VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS	ADTDK.AEDN GPRKTAAPVN AKKPLT AKKPYN TTSLCDV	SIQSLKIN SIQSLKIN ALVSHLLVV. KIVSHLLVV. KIVSHLLVA. KIVSHLLVA. KIVSHLLVA.
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9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERR_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas	B-box 01 KYEKPT KQQKP. KQQKP. KQQKP. KQQKP. KQQKP. SDSGKN GDSGKN GDSGKN GDSGKN GDSGKN GJSGKN SZAKN G.SLKCBCPC	D-boo TKSKNY SVGQC RRK QRKT HKS.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HK	X PRLENPDECI KSVTS.SF. SDKSS.EGFV KFDDDE.RK. 	ESVLT S.STASSFSQ .STN VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS	ADTDK.AEDN GPRKTAAPVN GPRKTAAPVN AKKPLT AKKPLT STKSDFSSDN	SIQSLKIN SIQSLKIN ALVSHLLVV. KIVSHLLVV. KIVSYLLVA. KILSYLLVA. KILEVLNSY. KILTQLISIE
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Copula_sivickisi RR3E_Homo_sapiens ERRM_Homo_sapiens ERRM_Homo_sapiens ERRM_Homo_sapiens ERRM_Homo_sapiens ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii	P-box 01 KYEKPT KQQKP. SDGGKT GDSGKN GDSGKN GDSGKN GDSGKN GDSGKN KYKRRP KYKRRI KYKRNP KYKRNP KYKRTV SSPAATKRSR S.LKGKRCR GS.PE	D-boo TKSKNY SVGQC RRK QRKT HKS.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ EVD DSE DAE DSG DSG ADSSDSAV ADSSDSAV	X PRLENPDECI KSVTS.SF. SDKSS.EGFV KFDDDE.RK. 	ESVLT S.STASSFSQ .STN VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS AGP.AVAG SPP Q.N IKK-ACVE 	ADTDK.AEDN ADTDK.AEDN GPRKTAAPVN AKKPIN TSLCDV STKSDFSSDN	SIQSLKIN SIQSLKIN ALVSHLLVV. KIVSHLLVV. KIVSHLLVV. KIVSHLLVA. KILEVLNSY. KILEVLNSY. KILEVLNSY.
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRA_Homo_sapiens ERRB_Homo_sapiens ERRP_Homo_sapiens ERRG_Losophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER Branchiostoma_floridae	P-box 01 	D-bo D-bo TKSKNY SVGQC RRK QRKT HKS.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ BKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ HKA.S.KLKQ	X PRLENPDECI KSVTS.SF. 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9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Nanomia_bijuga NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRA_Homo_sapiens ERRB_Homo_sapiens ERRG_Homo_sapiens ERRC_Tassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ERRA_Homo_sapiens	P-box 01 KYEKPT KQQKP. KQQKP. KDAAK. GDGGKT SDSGKN GDSGKN GDSGKN GDSGKN GDSGKN GDSGKN KYKRRI KYKRRI KYKRRI KYKRRI KYKRRI KYKRRI KYKRV SKPAATKRSR S.SLKGKRCR GS.PE KRTHNQ KHKROR	D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo	X PRLENPDECI KSVTS.SF. SDKSS.EGFV KFDDDE.RK. SDKSSSENFV E.ISES.NVV MSNDED.LKC MANDDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADDLKC MSADC MSADC MSADDLKC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC MSADC	ESVLT S.STASSFSQ .STN VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS	ADTDK.AEDN ADTDK.AEDN GPRKTAAPVN AKKPLT AKKPYN TTSLCDV STKSDFSSDN SRSASPTENN GDP.VENN GDP.	SIQSLKIN SIQSLKIN ALVSHLLVV. KIVSHLLVV. KIVSYLLVA. KIVSHLLVA. KILEVLNSY. KILTQLISIE GQSRRVLQLE SF
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9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRA_Homo_sapiens ERRD_Homo_sapiens ERRP_Homo_sapiens ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae	P-box 01 Kyekpt KQQKP. KQQKP. KQQKP. KDAAK. GDGGKT GDSGKN GDSGKN GDSAKN GDSAKN GDSAKN GDSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJSAKN GJKRTL KYKRTL KYKRTL KYKRTL KYKRTL KYKRTS S.SLKGKRCR GBAR GBAR JHKRQR RHKRQR RHKRQR RHKRQR RHKRQR RHKKTKSP	D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo	X PRLENPDECI KSVTS.SF. SDKSS.EGFV KFDDDE.RK. SDKSSENFV E.ISES.NVV MSNDED.LKC MANDDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDLLKC -P.PF.GPFP -SSPYLSLQ. -NSPYLNPQL -SYQTMQLLY -PIVQQIFPM 	ESVLT S.STASSFSQ .STN VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS	ADTDK.AEDN ADTDK.AEDN GPRKTAAPVN AKKPLT AKKPYN TTSLCDV STKSDFSSDN KGPPVENN SRSASPTENN GG	SIQSLKIN SIQSLKIN ALVSHLLVV. KIVSHLLVV. KIVSHLLVA. KIVSHLLVA. KILEVLNSY. KILTQLISIE GQSRRVLQLE SF LIVSPTLP.
9 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRA_Homo_sapiens ERRB_Homo_sapiens ERRB_Homo_sapiens ERRC_Tassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Branchiostoma_floridae ERA_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens	P-box 01 Kyekpt KQQKP. KQQKP. KQQKP. KDAAK. GDGGKT GDSGKN GDSAKN GDSAKN GDSAKN GDSAKN GDSAKN GDSAKN GDSAKN GDSAKN GQGKT KYKRRI KYKRRI KYKRRI KYKRRI KYKRRI KYKRRI KYKRRI KYKRRI KYKRI RYKRI S.SLKGKRCR GSPE KRURSA PKKTKRSP IQQA	D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bo D-bb D-bo D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb D-bb	X PRLENPDECI KSVTS.SF. SDKSS.EGFV KFDDDE.RK. SDKSSENFV E.ISES.NVV MSNDED.LKC MSNDED.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC MSADDD.LKC -P.PF.GPFP -SSPYLSLQ. -NSPYLNPQL -SYQTMQLLY -PIVQQIFPM 	ESVLT S.STASSFSQ .STN VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS VEPTS	ADTDK.AEDN ADTDK.AEDN GPRKTAAPVN AKKPIT AKKPYN TTSLCDV STKSDFSSDN KGPPVENN SRSASPTENN GD GG. TPPEQQ	SIQSLKIN SIQSLKIN ALVSHLLVV. ALVSHLLVV. KIVSHLLVA. KIVSHLLVA. KILEVLNSY. KILTQLISIE GQSRRVLQLE SF LIVSPTLP.
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96	51					
NR3E_Hydra_magnipapillata						
NR3F Trichoplax adhaerens	EDK	YIDVNCT.		RL	PSTPSPDKGY	DIKILKEFIG
NR3E Hydractinia symbiolongicarpus						
NR3E Aurelia aurita						
NR3E Rhopilema esculentum						
NR3E Podocoryna carnea						
NR3E Nanomia bijuga						
NR3E Chironex fleckeri						
NR3E Alatina alata						
NR3E Morbakka virulenta						
NR3E Tripedalia cystophora						
NR3E Copula sivickisi						
NR3E Chironex vamaguchi						
ERRa Homo sapiens				EPEKL	YAMPDPAG.	
ERRb Homo sapiens				EPDKL	YAMPPPGM	
ERRg Homo sapiens				EPEKT	YAMPDPTV.	
ERR Drosophila melanogaster				EPDAL	SVOTPPPOVH	TTSTTNDEAS
ERR_Crassostrea_gigas	0	•••••		OLDKI.	VUNTEGET	TIDIIMDIMD
NR3D Crassostrea gigas	Q	•••••	•••••	тически	CCCDNDAKCA	 DV
NR3D_Classosciea_gigas	•••••	•••••	•••••		NNCACCEVCC	VD
NR3D_Apiysia_Callionnica		FAVEDORCED	CUTCOFDIC	VDMECACOCE	NINGASSSASS	
RSD_Placyherels_dumerilli	FIVAVESVKI	EAVSPUECSP	SGUISQUDIS	VPMISASQSF	NLIPPP5155	5155P5
ER_Branchiostoma_fioridae	•••••	•••••	•••••	мраа		Do
ERA_HOMO_Sapiens	•••••	•••••	•••••	MRAA	NLWPSPLMIK	K5
CD Duranki antena flouidae	•••••	• • • • • • • • • • •	• • • • • • • • • • •	······································	••• AP ••• •••	• R • • • • • • • •
SR_Branchiostoma_floridae	•••••	• • • • • • • • • • •	• • • • • • • • • • •	·····	YN	• • • • • • • • • • •
GR_Homo_sapiens	•••••	•••••	•••••	GN.K	TIVPAT	
MR_Homo_sapiens	•••••	•••••	• • • • • • • • • • •	GT.T	YIAPAKEPSV	NT
AR_Homo_sapiens	••••	• • • • • • • • • • •	• • • • • • • • • • •	TQKL	TVS	• • • • • • • • • • •
PR_Homo_sapiens	• • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • • • •	SQRF	TFSPG	• • • • • • • • • • •
		LI ·	1			— нч
102	21	<u> </u>	1			<u>H3</u>
NR3E_Hydra_magnipapillata	21	PIEIEHEN	1 IIEQIRLTHS	KLYL	GLDE	-TVNGTL
NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens	SGEKYVIDQK	PIEIEHEN RDGRQ.IVND	1 IIEQIRLTHS V.KK.LEAEP	KLYL PMLP	GLDE	-TVNGTL .EAEDSGIRT
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus	SGEKYVIDQK	PIEIEHEN RDGKQ.IVND AQI	1 IIEQURLTHS V.KK.LEAEP A.QS.TSL.A	KLYL PMLP E	GLDE ACP.P KPED	H3 -TVNGTL .EAEDSGIRT .CTIE.TR
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurīta	SGEKYVIDQK	PIEIEHEN RDGKQ.IVND AQI TQDA.L.K	1 IIEQURLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D	KLYL PMLP EQEKPS	GLDE ACP.P KPED LLPNV	H3 -TVNGTL .EAEDSGIRT .CTIE.TR EED.IKPA
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum	SGEKYVIDQK	PIEIEHEN RDGKQ.IVND ACI TCDA.L.K	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D	KLYL PMLP E QEKPS	GLDE ACP.P KPED LLPNV	H3 -TVNGTL .EAEDSGIRT .CTIE.TR .EED.IKPA
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea	SGEKYVIDQK	H PIEIEHEN RDGKQ.IVND .AQI .TQDA.L.K .AQ.M.I.	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PMLP QEKPS EF	GLDE ACP.P KPED LLPNV 	H3 -TVNGTL .EAEDSGIRT .CTIE.TR .EED.IKPA .SSVR.TR
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga	21 SGEKYVIDQK	H PIEIEHEN RDGKQ.IVND .AQI. .TQDA.L.K .AQ.M.I. .AQ.M.L.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PMLP QEKPS EF EMC	GLDE KPED LLPNV 	H3 -TVNGTL .EAEDSGIRT .CTIE.TR .EED.IKPA .SSVR.TR .RMEN.AE.
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri	21 SGEKYVIDQK	H PIEIEHEN RDGKQ.IVND .AQI. .TQDA.L.K .AQ.M.I. .AQ.M.L.S .TQDA.L.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PMLP QEKPS EF EF ETKEL	GLDE KPED LLPNV KPED KPED KS.D RVSQP.	H3 -TVNGTL .EAEDSGIRT .CTIE.TR .EED.IKPA .SSVR.TR .RMEN.AE .DGVDVIT
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E Alatina alata	SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .AQI. .TQDA.L.K .AQ.M.L.S .TQDA.L.S .TQDA.L.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D A.QS.TAL M.QN.TTL.N VMKA.VSLEN VVKA.ITLEN	KLYL PMLP QEKPS EF EF ETKEL ETKEL	GLDE ACP.P. LPNU. LPNU. KPED. KS.D. RVSQP. RVSQS.	H3 -TVNGTL .EAEDSGIRT .CTIE.TR. .EED.IKPA SSVR.TR. .RMEN.AE .DGVDVIT .EGAEVMT
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E Morbakka virulenta	SGEKYVIDQK	H PIEIEHEN RDGKQ.IVND .AQI. .TQDA.L.K Q.M.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PMLP QEKPS EF EF ETKEL ETKEL ETKGL	GLDE ACP.P. LPNV. LPNV. KS.D. KS.D. RVSQP. RVSQS. RVCQS.	H3 -TVNGTL .EAEDSGIRT .CTIE.TR .EED.IKPA .SSVR.TR .RMEN.AE .DGVDVIT .EGAEVMT .D.TETMT
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora	SGEKYVIDQK	H PIEIEHEN RDGKQ.IVND .AQI .TQDA.L.K AQ.M.I.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D A.QS.TAL M.QN.TTL.N VMKA.VSLEN VVKA.VTLEN VVKA.VTLEN VVKA.VTLEN	KLYL PMLP QEKPS EF EF ETKEL ETKEL ETKEL	GLDE ACP.P. KPED. LLPNV. KS.D. KS.D. RVSQP. RVSQS. RVSQP.	H3 -TVNGTL .EAEDSGIRT .CTIE.TR.A SVR.TR .SSVR.TR .GGVDVIT .D.TETMT .DGSEVMT
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi	SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .AQI. .TQDA.L.K .AQ.M.I.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PM.LP QE.KPS EF EM.C ET.KEL ET.KEL ET.KEL ET.KEL	GLDE 	H3 -TVNGTL .EAEDSGIRT .CTIE.TR. .EED.IKPA .RMEN.AE. .DGVDVIT .EGAEVMT .DGSDVMT .DGSDVMT
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E Chironex yamaguchi	SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .AQI. .TQDA.L.K .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D A.QS.TAL M.QN.TTL.N VMKA.VSLEN VVKA.VTLEN VVKA.VTLET VVKA.VTLET VVKA.VSLEN	KLYL PMLP QEKPS EF ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL	GLDE ACP.P. KPED. LLPNV. KS.D. RVSQP. RVSQS. RVSQS. RVSQP. RVSQP. RVSQP. RVSQP.	H3 -TVNGTL .EAEDSGIRT .CTIE.TR. .EED.IKPA SSVR.TR. .BGVDVIT .EGAEVMT .DGVDVIT .DGSDVMT .DGVDVIT
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Ohironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa Homo sapiens	SGEKYVIDQK	H PIEIEHEN RDGKQ.IVND .AQI. .TCDA.L.K .TCDA.L.S .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D A.QS.TAL M.QN.TTL.N VMKA.VSLEN VVKA.ITLEN VVKA.VTLET VVKA.VTLET VVKA.VSLEN	KLYL PMLP QEKPS EF EFKEL ETKEL ETKEL ETKEL ETKEL ETKEL ETKEL	GLDE ACP.P. KPED. LLPNV. KS.D. KS.D. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP.	H3 -TVNGTL .EAEDSGIRT .CTIE.TR .EED.IKPA SVR.TR .RMEN.AE .DGVDVIT .DGSEVMT .DGSDVMT .DGSDVMT .DGVDVIT .PDGHLPA
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Cripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERBb Homo_sapiens	21 SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .AQ.I. .TQDA.L.K .AQ.M.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PM.LP QE.KPS EF EF ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL	GLDE 	H3 -TVNGTL .EAEDSGIRT .CTIE.TR. .EED.IKPA NMEN.AE. .DGVDVIT .EGAEVMT .DGSDVMT .DGSDVMT .DGSDVMT .PGGDIKA
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRB_Homo_sapiens	SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .AQI. .TQDA.L.K .AQ.M.I.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PM.LP QE.KPS EF.C. ET.KEL. ET.KEL. ET.KEL. ET.KEL. ET.KEL. ET.KEL. ET.KEL. ET.KEL. ET.KEL. ET.KEL. ET.KEL.	GLDE 	H3 -TVNGTL EAEDSGIRT CTIE.TR. .EED.IKPA SSVR.TR. RMEN.AE. DGVD-VIT EGAE.VMT DGSD.VIT DGSD.VMT DGSD.VIT PD.GHLPA PDGDIKA PD.SIKA
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRB_Homo_sapiens ERRB_Homo_sapiens	21 SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .AQI. .TQDA.L.K .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PMLP QEKPS EF ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL	GLDE ACP.P. KPED. LPNV. KS.D. RVSQP. RVSQS. RVSQS. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP.	H3 -TVNGTL EAEDSGIRT CTIE.TR. .EED.IKPA SSVR.TR. .GGVDVIT .GGXEVMT .DGVDVIT .DGSDVMT .DGSDVMT .DGVDVIT .PDGHLPA .PEGDIKA .NUNNDENEI
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurIta NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRg_Homo_sapiens ERRg_Homo_sapiens ERR_Drosophila_melanogaster	21 SGEKYVIDQK	H PIEIEHEN RDGKQ.IVND .AQI. .TQDA.L.K .TQDA.L.S .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D A.QS.TAL M.QN.TTL.N VMKA.VSLEN VVKA.VTLET VVKA.VTLET VVKA.VTLET VMKA.VSLEN SVVT SVVT	KLYL PMLP QEKPS EF EF ETKEL ETKEL ETKEL ETKEL ETKEL ETKEL ETKEL ETKEL ETKEL ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET ET	GLDE ACP.P. KPED. LPNV. KS.D. KS.D. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP.	H3 -TVNGTL EAEDSGIRT .CTIE.TR .EED.IKPA SSVR.TR .GGVDVIT .EGAEVMT .DGSDVMT .DGSDVMT .DGSDVMT .PDGELPA .PEGDIKA .PDSDIKA NNNNDPNE
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRB_Homo_sapiens ERRG_Homo_sapiens ERRC_Drosophila_melanogaster ERR_Crassostrea_gigas	21 SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .AQI. .TQDA.L.K .AQ.M.I.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PM.LP QE.KPS EF EF ET.KEL. ET.KEL. ET.KEL. ET.KEL. ET.KEL. ET.KEL. ET.KEL. ET.KEL. U.FSHH	GLDE 	H3 -TVNGTL .EAEDSGIRT .CTIE.TR. .EED.IKPA SSVR.TR. .RMEN.AE. .DGVDVIT .EGAEVMT .DGSDVMT .DGSDVMT .DGSDVMT .DGVDVIT .PDGHLPA .PEGDIKA NNNNNDPNEI .LEGGEEVRF
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRg_Homo_sapiens ERR_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas	21 SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .AQI. .TQDA.L.K .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PM.LP QE.KPS EF.C ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL PT.KEL PT.KEL PT.F.C PT.F.C PULSHH PUMDSYH	GLDE ACP.P. KPED. LLPNV. KS.D. KS.D. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQV	H3 -TVNGTL EAEDSGIRT .CTIE.TR .EED.IKPA RMEN.AE DGVDVIT .EGAEVMT D.TETMT .DGSDVMT .DGSDVMT .DGVDVIT .PDGHLPA .PDSDIKA NNNNDPNEI .LEGGEEVRF .GQPPTKVH. .NLDATVH
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERRD_Tosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Aplysia_californica	SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .AQI. .TQDA.L.K .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQ	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D A.QS.TAL M.QN.TTL.N VMKA.VSLEN VVKA.VTLEN VVKA.VTLET VVKA.VTLET VVKA.VSLEN 	KLYL PM. LP QE. KPS EF ET. KEL ET. KEL ET. KEL ET. KEL ET. KEL PV.KEL PVLESHH PVMDSYH LVYLIENDI.	GLDE ACP.P. LPNV. LPNV. KPED. KS.D RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. 	H3 -TVNGTL EAEDSGIRT .CTIE.TR .EED.IKPA SSVR.TR .DGVDVIT .EGAEVMT .DGVDVIT .DGSDVMT .DGSDVMT .DGSDVMT .DGVDVIT .PDGHLPA .PDSDIKA NNNNDPNEI .LEGGEEVRF .GQPPTKVH. .NLPATRVH.
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurIta NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRB_Homo_sapiens ERRB_Homo_sapiens ERRG_Homo_sapiens ERRG_Torassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER Branchiostoma_floridae	SGEKYVIDQK	H PIEIEHEN RDGKQ.IVND .AQI. .TQDA.L.K .TQDA.L.S .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.LS .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D A.QS.TAL M.QN.TTL.N VKA.VSLEN VVKA.VTLET VVKA.VTLET VVKA.VTLET VVKA.VTLET SV	KLYL PM. LP QE. KPS EF EF ET. KEL ET. KEL ET. KEL ET. KEL ET. KEL PVLESHH PVMDSYH ET. KELENDLL ET. KEL	GLDE ACP.P. LPNV. LPNV. KS.D. KS.D. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. 	H3 -TVNGTL EAEDSGIRT .CTIE.TR .EED.IKPA SSVR.TR .DGVDVIT EGAEVMT DGSDVMT .DGSDVMT .DGSDVMT .DGVDVIT .PDGDLPA .PDSDIKA NNNNNDPNE LEGGEEVRF .GQPPTKVH. .NLPATRVH. AESEETEYS.
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Rhopilema_esculentum NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Chironex_vanaguchi ERR3E_Chironex_yamaguchi ERR4_Homo_sapiens ERR4_Homo_sapiens ERR4_Homo_sapiens ERR4_Homo_sapiens ERR4_Homo_sapiens ERR4_Homo_sapiens ERR5_Homo_sapiens ERR5_Homo_sapiens ERR5_Homo_sapiens ERR6_Homo_sapiens NR3D_Crassostrea_gigas NR3D_Chassostrea_gigas NR3D_Platynereis_dumerilii ER_Homo_sapiens	SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .AQI. .TQDA.L.K .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.L.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S .TQDA.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PM.LP QE.KPS EF EF ET.KEL. ET.KEL. ET.KEL. ET.KEL. ET.KEL. ET.KEL. PVLESHH. PVLESHH. PVMDSYH LVVILEENDL EH.RGEENH	GLDE 	H3 -TVNGTL .EAEDSGIRT .CTIE.TR. .EED.IKPA .RMEN.AE. .DGVDVIT .EGAEVMT .DGSDVMT .DGSDVMT .DGSDVMT .DGVDVIT .PDGHLPA .PEGDIKA NNNNNDPNEI .LEGGEEVRF .GQPPTKVH. .NLPATRVH. AESEETEYS. .WQEIS.PE.
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens	SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .AC.I. .TCDA.L.K .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PM.LP QE.KPS EF.C ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL PV.KEL PVLSHH PVMDSYH LVVILEENDL EH.RGEENH PILYSEY	GLDE ACP.P. KPED. LPNV. KS.D. KVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. PNGTCIFQ. NH. PFKICKEPLT PTGQQAGN. P. PP	H3 -TVNGTL EAEDSGIRT .CTIE.TR .EED.IKPA RMEN.AE DGVDVIT .EGAEVMT D.TETMT DGSDVMT .DGSDVMT .DGSDVMT .DGVDVIT .PDGHLPA .PDSDIKA NNNNNDPNEI .LEGGEEVRF .GQPPTKVH. .NLPATRVH. AESEETEYS. .WQEIS.PE. .RPFSEASM
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Aurelia_aurita NR3E_Choronex_fleckeri NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERRg_Homo_sapiens ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_HOMO_Sapiens ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_SAPIENS ERA_HOMO_S	SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .ACI. .TCDA.L.K .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D A.QS.TAL M.QN.TTL.N VMKA.VSLEN VVKA.VTLEN VVKA.VTLEN VVKA.VTLET VVKA.VSLEN 	KLYL PM.LP QE.KPS EF ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL PV.ESHH PVLESHH PVLESHH PVLESHH PVLESHH PVLESHH PVLESHH PVLESHL IVVILEENDL EH.RGEENH PILYSEY PHULI-S	GLDE ACP.P. KPED. LPNV. KS.D. RVSQP. RVSQS. RVSQS. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. PMGTCIFQ. PNGTCIFQ. NH. PPKICKEPLT PTGQQAGN. P. RP.	H3 -TVNGTL EAEDSGIRT .CTIE.TR .EED.IKPA SSVR.TR .DGVDVIT .EGAEVMT .DGVDVIT .DGSDVMT .DGSDVMT .DGSDVMT .DGSDVMT .LEGGEEVRF .GQPPTKVH. .NINNDPNEI .LEGGEEVRF .GQPPTKVH. .NLPATRVH. AESEETEYS. .WQEIS.PE. .RFFSEASM .SAPFTEASM
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Rhopilema_esculentum NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRA_Homo_sapiens ERRB_Homo_sapiens ERRB_Homo_sapiens ERRC_rassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens ERA_Homo_sapiens ERA_Homo_sapiens ERA_Drosophila_melanogaster ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens	SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .AQ.I. .TCDA.L.K .TCDA.L.K .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.L.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TC	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PM.LP QE.KPS EF EF ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL PV.ESHH PVLESHH PVLESHH PLLYSEY PHVLI-S NPILTGY	GLDE 	H3 -TVNGTL .EAEDSGIRT .CTIE.TR. .EED.IKPA SSVR.TR. .RMEN.AE. .DGVDVIT .EGAEVMT .DGSDVMT .DGSDVMT .DGSDVMT .DGSDVMT .DGSDVMT .DGSDVMT .DGSDVIT .PDGBLPA .PDGDIKA NNNNNDPNEI .LEGGEEVR .GOPPTKVH. .NLPATRVH. AESEETEYS. .RPFSEASM .SAPFTEASM .GCPTTE.Y. .SAPFTEASM
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102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Chironex_fleckeri NR3E_Chironex_yanaguchi ERR3E_Chironex_yanaguchi ERR4_Homo_sapiens ERR5_Homo_sapiens ERR5_Homo_sapiens ERR5_Homo_sapiens ERR6_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens ERD_Homo_sapiens ERB_Homo_sapiens SR_Branchiostoma_floridae GR_Homo_sapiens MR4D_Crassotrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae GR_Homo_sapiens MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTENS MR4D_CRASSOTEN	SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .AC.I. .TCDA.LK .TCDA.LK .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA.S .TCDA	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D 	KLYL PM.LP QE.KPS EF.C EF.KEL ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL PVLSHH PVMDSYH LVVILEENDL EH.RGEENH PILYSEY PHVLI-S PHVLIS PHVLIGY EVLYAGY EVLYAGY	GLDE ACP.P. KPED. LPNV. KS.D. KSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. PNGTCIFQ. PNGTCIFQ. PHGTCIFQ. PHGCLFQ. PHGTCIFQ. PHGTCIFQ. PHGTCIFQ. PHGTCIFQ. 	H3 -TVNGTL EAEDSGIRT .CTIE.TR .EED.IKPA SXVR.TR .RMEN.AE DGVDVIT .EGAEVMT D.TETMT DGSDVMT .DGSDVMT .DGVDVIT .PDGHLPA .PDSDIKA NNNNNDPNEI .LEGGEEVRF .GQPPTKVH. .NLPATRVH. AESEETEYS. .WQEIS.PE. .RFFSEASM .QCTPTE.Y. .S.PDSTWRI .SKPDTAEN.
102 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Aurelia_aurita NR3E_Choronex_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Chironex_fleckeri NR3E_Alatina_eystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERR_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens SR_Branchiostoma_floridae GR_Homo_sapiens MR_Homo_sapiens AR_Homo_sapiens AR_Homo_sapiens	SGEKYVIDQK	H PIEIEHEN RDGRQ.IVND .ACI. .TCDA.LK .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS .TCDA.LS	1 IIEQIRLTHS V.KK.LEAEP A.QS.TSL.A L.RT.TSL.D A.QS.TAL M.QN.TTL.N VMKA.VSLEN VVKA.VTLEN VVKA.VTLEN VVKA.VTLET VVKA.VTLET SV	KLYL PM.LP QE.KPS EF ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL ET.KEL PV.LESHH PVLESHH PVLESHH PVLESHH PVLESHH PVLESHH PVLESHH PVLESHH PVLESHL EH.RGEENH PLLYSEY PHVLI-S NPILTGY EVLYAGY EVLYAGY	GLDE ACP.P. KPED. LPNV. KS.D. RVSQP. RVSQS. RVSQS. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. RVSQP. 	H3 -TVNGTL EAEDSGIRT CTIE.TR .EED.IKPA SSVR.TR .GVDVIT EGAEVMT DGVDVIT DGSDVMT DGSDVMT DGSDVMT .DGSDVMT .DGVDVIT .PDGHLPA PEGDIKA NNNNNDPNEI .LEGGEEVRF .GQPPTKVH. .NLPATRVH. AESEETEYS. .WQEIS.PE. .RPFSEASM .SAPFTEASM .SAPFTEASM .SAPFTEASM .SKPDTAEN. .NQPDSFAA.

NR3E grudra magnipapillata THEFYEGICK DLHILDWAK RIPCISELL SOQAVLLAWARW. FLITSTN- NR3F Trichoplax adhaerens ITTICENVER UVW	10	81 H3			H4	-5	
NR3F Trichopiar adharensITTICENVERVWV	NR3E Hydra magnipapillata	THKFYGTIGK	OLIHIIDWAK	RIPGYSSLIL	SDOAVLLOAT	WVELMVANWL	FLSITSTN-S
NR3E J. SW. VDQ V Q C. N. VI A. A. D. LAL. Y YH. LIVEE. A NR3E Aurita SSCDIV AA G. ET. T. N I G. I. MILLI. T. Y. L5HK. K NR3E Podcoryna carnea VON. CM. VOD. V AA G. ET. T. N I G. I. MILLI. T. Y. L5HK. K NR3E Chironex fleckeri G. C. N. VI C. C. N. VI A. D. L. LV YH. LCHDA NR3E Chironex fleckeri G. C. N. VI C. C. N. VI A. D. L. LV YH. LHVSE. K NR3E Chironex fleckeri G. C. N. VAV. G. C. N. T. N I G. I. LLL, V FRI. K. WILLITS, V. VILLITS, V. VILLITS, V. LERI. K NR3E Chironex yamaguchi G. GYLCKO. R VAV. G. C. DT. T. N I G. I LLL, V ERI. K NR3E Chironex yamaguchi GYLCKO. R. VAV. G DT. T. N I G. I LLL, V ERI. K RERD Gono sapiens LTTCCLARD E. VV. G. H F. I. S. A. MS. SA N. LLIGVY K. LEPED. K RERD Consosterac gas LANDYLKE E. V. L. S. W T. S M C. G. A. M. LLIGVY K. LEPEN. K RERD Consosterac gas LANDYLKE E. V. L. S. W T. S M. LLIGV K. M. LEPEN. K RERD LANDYLKON F. V S V. LEWS. M	NR3F Trichoplax adhaerens	ITIICEMVER	E.VMV	тс.	NVS	.L.VFMIDLA	.R. MPYDK
NR3E Aborlia aurità -SECDIVAA G ET. T. N I G. I. MILL. T. Y. LPH K. NR3E Aborliame acculate aurona bigua -LTLDIV VAA G ET. T. N I G. I. MILL. T. Y. LPH K. NR3E Aborliame acculate aurona bigua -LTLDIV VAA G CN. VI A D. L. V. YH LCIDD. A NR3E Aborliame acculate aurona bigua -LTLDIV VAN G	NR3E Hydractinia symbiolongicarpus	.QSW.VDQ	. .v	QLCN.VI	A	D.LALV	YH.LYVEE.A
NR3B_Bhoplema LTDIV. .VAA CC.N. ET.T. NI.G. I.HLLL, T.Y.LEHE.X. NR3B_bodcoryna carnea VON.CW.VOD, V CC.N. STA. D.L.L.V.Y.L.LIDDA. NR3B_bodcoryna carnea IO.C.T.VDQ, V CC.N. STA. D.L.L.V.Y.L.LIDDA. NR3B_bodica CYLCKO VAVGD.T.NI.G. I.LLLV, V. HERL.K. NR3B_bodica CYLCKO VAVGD.T.NI.G. I.LLLV, V. HERL.K. NR3B_Chiconex, yanaguchi CYLCKO VAVGD.T.NI.G. I.LLLV, V. HERL.K. NR3B_Chiconex, yanaguchi CYLCKO VAVGD.T.NI.G. I.LLLV, V. HERL.K. NR3B_Chiconex, yanaguchi CYLCKOR. VAVGD.T.NI.G. I.LLLV, V. HERL.K. NR3B_Chiconex, yanaguchi CYLCKOR. VAVG. I.F.F. S. M.S.S.M.N.LLIGUY W.LEPED.K. ERR Drosophia Balanogaster LTTCOLADR E.VV.G. H.F.F. S. A.M.S.S. M.LLILGVW W.LEPED.K. ERR Drosophia Carsocatrae_gigas LATVOSLADR E.VT.S. W.F.T.S. M.M.C.Y.A.M.LLICGVW W.LEPED.K. ERR Drosophia Carsocatrae_gigas LATVOSLADR E.VV.G. H.F.F. S. N.W.N.S.S. M.LLICGVW W.LEPED.K. RER Drosophias LATVOSLADR	NR3E Aurelia aurita	.SSLCDIV	AA	GLET.T.	NG	.I.MLLL.I	.Y.LPHK
NR3E Podecorynia carnea VON.CW.VDQ V. C. C. N. D. L. V YELLUDD.A NR3E Manomia bijuga G. C.V.CVQ V.N. G. C.N.SI I.<.A. D.L.L.V	NR3E Rhopilema esculentum	LTLDIV	VAA	GLET.T.	NG	.I.MLLL.T	.Y.LSHKK
NR3E NR3E Chironex Jielevie VRCN.SI CN.SI L.L.V VIELUVSE.K NR3E Chironex GIUCKOVAV. GLCN.SI L.L.V ERI.K NR3E Marchaka virulenta GUUCKOVAV. GLD.T.N.IG I.LLL.V ERI.K NR3E GUUCKO.R VAV. GLD.T.N.IG I.LLL.V ERI.K NR3E GUUCKO.R VAV. GLD.T.N.IG I.LLL.V ERI.K NR3E Chironex yamaguchi GUUCKO.R VAV. GLD.T.N.IG I.LLL.V ERI.K NR3E Chironex yamaguchi GUUCKO.S. VAV. GLD.T.N.I.I.G I.LLL.V ERI.K RRAG GUUSSITIA GUUSSITIA VIATCOLDER VIATCOLDER VIATCOLDER S.L.F.L.S. A.S.S.S.F.L.S. S.S.F.L.S. S.S.S.F.L.S. S.S.S.F.L.S.S.S.S.F.S.S.S.S.F.L.S. S.S.S.F.S.S.S.F.	NR3E Podocoryna carnea	VQN.CW.VDQ	. .v	QLCN.VI	A	D.L.LV	YH.LCIDD.A
NR3E Chironez fieckeri VILCKO.S. VAV GLDT.T. NIG.I.LLL.V. ERI.K. NR3E Mathama GVLCKO.S. VAV GLDT.T. NIG.I.LLL.V. ERI.K. NR3E Mathama GVLCKO.R. VAV GLDT.T. NIG.I.LLL.V. ERI.K. NR3E Copula_sivickisi GVLCKO.R. VAV GLDT.T. NIG.I.LLL.V. ERI.K. NR3E Copula_sivickisi GVLCKO.R. VAV GLDT.T. NIG.I.LLL.V. ERI.K. NR3E Chironex yamaguchi GVLCKO.R. VAV GLDT.T. NIG.I.LLL.V. ERI.LK. RERA Gmomogapiens GVLCKO.S. VAV GLDT.T. NIG.I.LLL.V. ERI.LK. RERA Gmomogapiens LATLCDLADR I.VVT.S. SF.S.GBSSA.M.LLLGV VELEPUD.E ERE RER Decosopiesa Gagas LATLCDLADR I.VVT.S. SF.S.GBSSA.M.LLLGV VELEPUD.E ERE RE Branchiostoma_florida LATLILADR I.VVI.SUN.M.T.F.G.GBLLLCN.V. MT.G.GMLLLCN.K. MT.G.G.M.LLLCN.K. MEMEG.E RE Homo sapiens LATLILADR I.VVI.SUN F.TG.C.G.KR.S.N.L.MLEGN.K. MEMEG.E<	NR3E Nanomia bijuga	IQCF.VDQ	VR	QLCN.SI	A	D.L.L.V	YH.LHVSE.K
NA3E Alatia CVLCKO VAV CKDT.T. NIG.I.LLL, VERI.K. NA3E MOTAKAKA virulenta CHLCKO.R. VAVCKD.T. N.IG.I.LLL, VERI.K. NA3E Copulation of the second o	NR3E Chironex fleckeri	.GYLCKQ.S.	VAV	GLDT.T.	NG	.ILLL.V	ERIK
NR3E Morbakka virulenta .GHLCKQ.R. VAVGLD'.T.N.IG.I.LLL.VERT.K. NR3E Tripedalia_cystophora .GHLCKQ.R. VAVGLD'.T.N.IG.I.LLL.VERT.K. NR3E Copula_sivickisi .GYLCKQ.R. VAVGLD'.T.N.IG.I.LLL.VERT.K. NR3E ChickQ.R. VAVGLD'.T.N.IG.I.LLL.VERT.K. RRAB GMCAQ.S. VAVGLD'.T.N.IG.I.LLL.VERT.K. ERRB Homo_sapiens LTTLCDLADR E.VV.GBF.I.S.G.MS.N.S.M.M.ILLGVY TALEPTOD.K. ERR Drosophia_melanogaster LTTLCDLADR E.VV.GBF.I.S.G.MS.N.S.M.M.ILLGVY TALEPTOD.K. ERR Drosophia_melanogaster LSVISDLADR E.VV.G.C.BF.I.S.G.MS.N.S.A.M.ILLLGV V.L.SEPD.E. ERR Drosophia_melanogaster LSVISDLADR E.VV.G.C.BF.I.S.G.MS.N.S.A.M.ILLGUY TALEPTON.K. ERR Drosophia_melanogaster LSVISDLADR E.VV.G.C.G.V.I.N.MVK.A.I.LICLA.M. CPYNG.Y. ERR Drosophia_melanogaster LSVISDLADR E.VV.N.N.W.L.F.G.Z.G.V.I.M.S.LD.LLUU.C.A. MEHEG.R. NR3D Diaysia_calination of the company in the company i	NR3E Alatina alata	.GYLCKQ	VAV	GLDT.T.	NG	.ILLL.V	ERIK
NR3E Tripedalīa cystophora , CYLCKQ.R. 'VAV CfD.,T. NIG. I.LLL.VERP. H. NR3E Copula sivickisi , CYLCKQ.R. 'VAV CfD.T.T. NIG. I.LLL.VERP. H. NR3E Copula sivickisi , CYLCKQ.R. 'VAV CfD.T.T. NIG. I.LLL.VERP. H. RERA Homo_sapiens , CYLCKQ.R. 'VAVG. EP.I.SMSV.SV. M.VL.LCVV QOLFDQDE ERRB Homo_sapiens LTTLCDLADR E.VV.G. E. HF.IS. A.MS.S. M. HILLGUY YR LFPLOD.E ERR Jono_sapiens LTTLCDLADR E.VV.G. E. HF.IS. A.MS. S.M. MILLUUT. N. EPFLOD.E ERR Crassostrea gigas LNSUKILARE E.VI.N. MVTISMRVS A. HILLCA. R. HEFEG.R NR3D Capisia californica LWTIKLARD E.VU.N. HVTISMRVU.ECC. M.LLL.CA. R. HEFEG.R NR3D Platymereis dumerilii L.NILVKLAER E.V.L.N. HVTISWI.FECC. M.LLL.CA. R. HEFEG.R NR3D platymereis dumerilii L.NILADR E.VU.N. HVTISWI.FECC. M.LLL.CA. R. HEFEG.R REB Fanchistoma_floridae MGLINHADR E.VU.N. HVTISWI.FECC. M.LLL.CA. R. HEFEG.R REB Fanchistoma_floridae MGLINHADR E.VU.N. HVTISWI.FECC. M.LLL.CA. R. HEFEG.R REB Branchistoma_floridae MGLINHADR E.VU.N. HVTISKIALSC.M.LUKARR K.VKN.TY. ID.HEFEG.KKR REB Branchistoma_floridae MGLINHADR EVELVIN A.LKSN. N.V.L.KECLIMIGU WERGE REB Branchistoma_floridae MGLINHADR EVELVIN A.LKSN.T.YOL.S.KSN.TRAGKR REB Homo_sa	NR3E Morbakka virulenta	.GHLCKQR	VAV	GLDT.T.	NG	.ILLL.V	ERIK
NR3E Copia sivickisi . GYLCKQ.R. 'VAV GLD'I.T. NIG. ILLL.VERI.K. RN3E Chironex yamaguchi GYLCKQ.S. 'VAV GLD'I.T. NIG. ILLL.VERI.K. ERRb Homo_sapiens GYLCKQ.S. 'VAVGLD'I.T. NIG. ILLL.VERI.K. ERRb Homo_sapiens LTTLCDLADR E.VVGE.I.F.I.S. G.MSSA.M.ILLGVY NLEPPOD.K. ERR Drosophia melanogaster LTTLCDLADR E.VV.GE.I.F.I.S. G.MSSA.M.ILLCV. N. LEPPNG.K. ERR Drosophia melanogaster LSVLSDLADR E.VV.GE.I.F.T.S. OV.F.ICC.M.LLL.CA.R. ERGG.K. NR3D Crassostrea gigas LATVSDLADR E.VV.GQ.F.I.F. N.MVS. A. LITLCA.R. ERGG.K. NR3D Platynereis dumerilii L. NILLABM E.VVN.VV.V.F.C.G. R. RIALESC.MLLLCA.R. MEHGG.R ER Homo sapiens MGLITNLADR E.VV.N.W.V.V.F.G. E.R. NALLESC.MLLLCA.R. MEHGG.R ERA Homo sapiens MGLITNLAR E.V.N.N.V. V.V.V.T.S. N.LLLLOW WEHRG.F. ERM Homo sapiens MGLITNLAR E.V.N.S.K.L.FVIS.F. M.LLUCU.W.MEHRG.F. N.LUKUCU.W.W.V.V.F.R.K.B. LLILLUV WEHRG.F. ERM Homo sapiens LTSTLNDLAR E.V.N.S.K.L.FVIS.F. M.L. D.MAULY S.MGFARG WF.F.W.S.S. N.LLILLUV WEHRG.F. RA Homo sapiens LSTLNELGER N.V.VW.V.V.F.R.H.B. D.NAVI.YS.MGFARG WF.F.W.VSG.R. N.LEWENG.F.W.VSK.F.S.S.F.F.M.H.D.D.MAULYS.MGFARG WF.F.W.VSG.R. RA Homo sapiens LSTLNELGER N.V.VWV.V.V.V.F.R.H.B. D.NAVI.YS.MGFARG WF.F.W.VSG.R. N.A.K.M.Y.W.VSK.F.S.LETK.K.W.S	NR3E_Tripedalia_cystophora	.GYLCKQR	VAV	GLDT.	NG	.ILLL.V	ERFK
NR3E_Chironex yamaguchi (YULCKO.S. VAV GLDT.T. NI.L.G. (I.LLL, VERI, ERR, domo_sapiens (ITTLCDLADR E.VV.G. H.F., S. S. M.SV.SV A.V.I.GVA OF, LPUOD.E ERR_Homo_sapiens (ITTLCDLADR E.VV.G. H.F., S. S. M.S.SA M. HLIGUY YELPUDE ERR_Drosophila_melanogaster LSULSDIYD. E.VSV.G. Q.FTL.P. N. MK.VS A. HLTQUT. R. LPYNG. Y INTSD_Crassostrea_gigas (INTSC) V.G. (I.T.S. V.G. (I.T.S. A.M.S. SA M. HLIGUY YELPUDE ERR_Crassostrea_gigas (INTSC) V.G. (I.T.S. V.G. (I.T.S. M. MS. SA M. HLIGUY YELPUDE ERR_Crassostrea_gigas (INTSC) V.G. (I.T.S. V.G. (I.T.S. M. MS. SA M. HLIGUY YELPUDE ERR_Drosophila_melanogaster (ISVISDIADR E.V.L.N. NVTI, SNH. HSC. (I.L.C. V. R. (EPNG. Y NR3D_Apisia_californica (INTSC) V.G. (I.T.S. V. (I.T.S. V. (I.T.G. (I.T. (I.L.C. V. R. (INTSC) V. (I.T. (I.T	NR3E_Copula_sivickisi	.GYLCKQR	VAV	GLDI.T.	NG	.ILLL.V	ERIK
ERR_Homo_sapiens VATLCDLFDR EIVVT.S SJ.F., SKSV.SV M.VL.LGVA QRLEPLOD. ERR_Homo_sapiens LTTLCDLADR E.VV.G. H.F., S. G.NS.SA M.ILIGUY KLEPLOD. ERR_Drosophila_melanogaster LSVLEDIADR E.VV.G. H.F., S. G.NS.SA M.ILIGUY KLEPED. ERR_Drosophila_melanogaster LSVLEDIADR E.VV.G. H.F., S. G.NS.SA M.ILIGUY KLEPED. ERR_Drosophila_melanogaster LSVLEDIADR E.VIT.S QV.FCT.SNN.HS I.LICL.V. R.CPYNG. NR3D_Playsia_californica LNTLKLADR E.VVL.N. NVTI.SHIECC M.LLL.CA R.MEHEG. NR3D_Playsia_californica LNTLKLADR E.VVL.N. NVTT.SHIECC M.LLL.CA R.MEHEG. RN3D_Playsia_californica LNTLKLADR E.VVL.N. NVTT.SHIECC M.LLL.CA R.MEHEG. ERA_Bomo_sapiens MGLINLADR E.V.N.NKYVI.T. H.V.H.ECA I.LILC.GA W.RHENT.F ERA_Bomo_sapiens MGLINLADR E.V.N.N. KL.FVI.T. H.VH.CA I.LILCA R.MEHEG. KR_Branchiostoma_floridae MITILNDE R.V.N.NKFVI.T. H.VH.CA I.LILCGI W.R.HERG.E ERA_Bomo_sapiens MTILNAGE. V.ANV. AFN. HDMT.V.S. ME.AFALG WR YROSAN MISIEKLAD. R.V.VVK. AFN. FDTI.I.YS MC.SFALS WR YROSAN MISIEKLAS. M.QVVK.VV. AL.FRN. HDMT.V.S. MCFAMG WR F.WV.SR AR_Homo_sapiens LSSLEEGER V.VVVK. AL.FRN. HDMT.V.S. MCFAMG WR F.WV.SR NR3E_Hydra_magnipapillata I.F.KIS YT AEAL DE NRAFE S.M.A.K.NNA.L. NR3E_Hydra_magnipapillata I.F.KIS YT BEAK E. EN.C.FES ANA.K.NNA.L. NR3E_Pricion_sapiens V.YACDWV DD FRN. HDMT.V.SS.L.P.F.C. W.LWSGO NR3E_Hydra_magnipapillata I.F.KIS YT DEAK EN.C.FES ANA.K.NNA.L. NR3E_Pricion_sapiens V.YACDWV DD FRN. HDMT.V.SS.L.P.F.C.W.S.GFV.L. NR3E_Pricional bijuga I.F.KIS YT DEAK ENTHIESS IN .C. F.L. NR3E_Pricional bijuga I.F.KIS YT DEAK ENTHIESS IN .C. F.L. NR3E_Pricional bijuga I.F.KIS YT DEAK ENTHIESS IN .C. F.L. NR3E_Pricional bijuga I.F.KIS YT DEAK ENTHIESS IN .C. F.L. NR3E_NOTOCHAS AND SCHOPTA VYNES F.F. V.L. NR3E_Pricional bijuga CALBERCHAR V.YS. T DEAK ENTHIESS IN .C. F.L. NR3E_Pricional bijuga CALBERCHAR V.YS. T DEAK ENTHIESS IN .C. F.L	NR3E_Chironex_yamaguchi	.GYLCKQ.S.	VAV	GLDT.T.	NG	.ILLLV	ERIK
ERRg Homo_sapiens LTTLCDLADR E.VV.G., H.,F., S.G., S.G.NS., SA M. LLLGUY VELEPYDD. K. RERg Homo_sapiens LSTLSDLADR E.VV.G., H.,F.,T.S. A., MS., SA M. LLLGV VELEPYDD. ERR Crassostrea gigas LSULSDLADR E.VV.G., P.T.F., S. A., MS., SA M. LLLGV VELEPYDD. K. VSV.G., Q., FIG.P. N., NK., VS. A. LLTQLT, R. LPFNG. K. LATYSDLADR E.V.L.N., WV., CTG.S., N.N., HS L. LLCL V. R. CPYNG. Y. NR3D Aplysia_californica LNSLKLADR E.V.L.N., WV., TG.T. G., VH. IECC M., LLL CA R. HEHEG. R. NR3D Platynereis_dumerilii L.RLI.LADR B.VVLN., WV., TG.T. G., VH. IECC M., LLL CA R. HEHEG. R. LRTKLADR E.V.L.N., WV., TG.T. G., VH. IECC M., LLL CA R. HEHEG. R. ER Branchiostoma_floridae MGLINNLADR E.V.N.S., K., IVE, S. N., VL. MES, LD. LLL CA R. MEHEG. R. MGLINNLADR E.V.N.S., K., IVE, S. F., VR. ESC M. VLUMMGIM WF, MEHEG. R. MGLINNLAR E.V.N.S., K., IVE, MS. N., V., LC, GM, WE, KEN, TG. G. K., MS. S. N., CH. MSC, WK, MEHEG. R. MGLINNLG R. V.N.S., K., IVE, S. F., VR. ESC M. VLUMMGIM WF, MEHEG. R. MAUYTDLANR EIECLV., A. L., GW, PM D., VN. IRTV JD. LMLGUW WF, MEHEG. R. MAUYTDLANR EIECLER, V.V.K.S. S., FRN. HD D. VN. IRTV JD. LMLGUW WF, MEHEG. R. MAUYTDLANR EIECLER, V.V.K.S. SL., FRN. HD D., VN. IRTV JD. LMLGUW WF, MEHEG. R. N.S.F R_Homo_sapiens LSTLNRLA., M.QVVK., VL., FKN. PD L. NT. I.Y. S. M., FALG WF, YKHYSOG LSTLNQLGER LSTLNQLGER LSVVK.S. SL., FRN. HT D., IT. I.Y. MC. SSFALS WF, YKHYSOG LSTLNQLGER LSVVK.S. SL., FRN. HT D., TT. I.Y. MC. SSFALS WF, YKHYSOG LSTLNQLGER LSVVK.S. SL., FRN. HT D., TT. I.Y. MS. MARGHARING, V.YACDWM GH., W.Y.S.F. M. TO, DSSTLED, T., VRE, G, FVL. NR3E Podocoryna carnea I.F.F.S. TY	ERRa_Homo_sapiens	VATLCDLFDR	EIVVT.S	SFS.	MSVSV	.M.VL.LGVA	QR.LPLQD.E
ERR Jorosophia melanogaster ERR Drosophia melanogaster ERR Jorosophia melanogaster ERR Jorosaphia Melanoga	ERRb_Homo_sapiens	LTTLCDLADR	E.VVG	HFS.	GMSSA	.M.ILILGIV	YR.LPYDD.K
ERR Orssophila melanogaster LSVLSDIYD. E.VSV.G QFT.P. N.MKVS A.LILCLU. R.LPPNG.K ERR Crassostrea gigas LLSUSDIYD. E.VSV.G QFT.SVN.MSHS L.LLCLU. R. LPPNG.K NR3D Aplysia californica LNSUVKLARE E.V.L.N NVTC.T. G.VV.HIECC. M.LLLCA. R. EEGG.K NR3D Platynereis dumerilii L.RLILLADM E.VVLN VVTC.T. G.VV.HECC. M.LLLCA. R. MEEGG.K RB formosapiens LRILIKLADR E.V.L.N NVTC.T. G.VV.HECC. M.LLLCA. R. MEEGG.K RB homo_sapiens MGLITNLADR E.V.N.N V.FVI.ESC. M.LULGAW RR, RLN.T.F ER Branchiostoma_floridae MMITTILADR E.V.M.N V.FVE.S. F.V.N.LSC. M.LULGAW RR, DEHPG.K RG Homo_sapiens MMITTIMG.R. V.AAVK A GVN VV.K.ESC. M.VIMMGLW RR, VERGE R. RR Homo_sapiens LSSLINEIGER V.VVK A FRN.H. D.NTT.YS MG. FAW WR, VERKER, E RR Homo_sapiens LSSLINEIGER .V.VVK SL.FRN.HI D.ITT.IYS MG. FAW WR, VERKER, E RN3E Hydra magnipapillata V.YACDWM GH SNA.L. DENRHAFE .TXYKSISM KD.FALR NR3E Podocoryna carnea I.F.RY.S. TY	ERRg_Homo_sapiens	LTTLCDLADR	E.VVG	HF.T.S.	AMSSA	.M.ILILGVV	YR.LSFED.E
ERR Crassostrea_gigas LATVSDLADR E.VIT.SQVFG.SNMSHS. L.ILCL.V .R.CPYNG.Y NR3D Crassostrea_gigas LATVSDLADR E.VIL.N WVTL.SVH.IEC.MLLL.CA. R_DEBEG.R NR3D Playsia_californica LNTLIKLADR E.VIL.N HVTC.SVH.IECC.MLLL.CA. R_MEBEG.R NR3D Playsia_californica LNTLIKLADR E.VIL.N HVTC.SVH.IECC.MLLLCA. R_MEBEG.R NR3D Playsia_californica LNTLIKLADR E.VIN.N VTC.F.G.R.RIALESC.MLLGCA MR_RLN.T.F. ERB Jono_sapiens MSLTNLADR E.V.N.NV.V.FVI.T. H.VH.ECA.L.ILMIGU.WR_MEBEG.R R Homo_sapiens MSLTNLADR E.V.M.NV.VFVI.T. H.VH.ECA.L.ILMIGU.WR_MEBEG.R R Homo_sapiens MSTINULARE E.V.M.NV.VFVI.T. H.D.NTTYS.MG.SSAN R Homo_sapiens MTTINMUG.R.V.ANVAGN PM D.VN.INTV.ID.LMIGU.WR_MEBEG.R R Homo_sapiens LSSINEGER V.VVX.N.L.FKN.P.E.IT.IYS.MSFGG.WR_YRNSSAN R Homo_sapiens LSSINEGER V.VVV.N.AL.FKN.P.E.E.T.NYNSISS MSC.SSECFA NR3E Hydrachinia_symbiolongicarpus I.F.KF.S.TY	ERR_Drosophila_melanogaster	LSVLSDIYD.	E.VSV.G	QFID.P.	NMKVS	.A.ILTLQLT	.R.LPFNG.K
NR3D Crassostrea_gigas INSIVKLAER E.V.L.N W. J.TISVH. IECC .M. LLL.CA .R. EBGS.K. NR3D Aplysia californica LNSIVKLAER E.VVL.N WTISVH. IECC .M. LLL.CA .R. MEHEG.R NR3D Aplysia californica L.RLI.LADM E.VVL.N VYC.G.R. R.RTAI.ESC .M. LLGAA WR.RLN.T.F. ER Branchiostoma_floridae L.RLI.LADM E.VVV.N VYC.T. HVH.ECA .L.LLHIGU WC.RHKG.F. ERB-Bomo_sapiens MGLITNLADR E.V.M.N VYU.T. HVH.ECA .L.LLHIGU WC.RHKG.F. SR Branchiostoma_floridae MAUVTDLANR EIEGLVA LGM.PM DVN.IRTV.LD.LMIGU WR.MEHEG.R SR Homo_sapiens LISTINHIG.R.V.ANN. AFRM.H. DWT.YS .MC.SSPALS WR.WEHRG.F. R Homo_sapiens LSTINHIGER V.VANK AFRM.P. EIT.I.YS .MC.SSPALS WR.YKH.SOG R Homo_sapiens LSTINLIGER .LSVVK.S.SL.FRM.HI DTI.I.YS .MS.FGLG WR.YKHVSOG NR3E Hydra magnipapillata LK-LSHTPDI SK	ERR_Crassostrea_gigas	LATVSDLADR	E.VIT.S	QVFCI.S.	HS	.L.ILCL.LV	.R.CPYNG.Y
NR3D Aplysia_californica LNTLIKLADR E.VVLN HVFQ.T. G.VH. IECC .MLLLCA .R.MEEG.R NR3D Platymereis_dumerilii LRLLLADR E.VDVVN VLFG.T. R.RIALESC .MLLLAA WR.RUN.T.F ER Banon_sapiens MCLLTNLADR E.V.M.N VFYLT.T. H.VH.SCA .L.LLLUCW WR.MEHPG.K ERB Joom_sapiens MCLTNLADR E.V.M.S VFYLT.T. H.VH.SCA .L.LLUCW WR.MEHPG.K SR Branchiostoma_floridae MMSLTKLAD. E.V.M.S VFYLT.T. H.VH.SCA .L.LLUCW WR.MEHPG.K R Homo_sapiens MSLTKLAD. E.V.M.S KFYLS. F.VR.ESC .M.VLMMGLM WR.DHPG.K R Homo_sapiens LSTLNRLA M.QVVK AFRN.H.DMTYS MGFAMG WR.FNV.SR PR Homo_sapiens LSSLNELGER .V.VVK AFRN.H.DMAVI.YS .MGFAMG WR.FNV.SR PR Homo_sapiens LTSLNQLGER .V.VVK AFRN.H.DMAVI.YS .MGFAMG WR.FNV.SR NR3E Hydra_magnipapillata LK-LSHTFDI SK	NR3D_Crassostrea_gigas	LNSLVKLAER	E.V.L.N	NVTD.S.	VH.IECC	.MLLL.CA	.REHGG.K
NR3D_Platynereis_dumerilii L.RLI.LADM E.VDVVN., VL.F.G.E. R.RLAT.ESC .M.LCIGAA WR, RLN.T.F. ER Branchiostoma_floridae ER Branchiostoma_floridae HSVSSLVDR E.TG.C.G.G.K, K.S. N.VL.MES.L.DLLLLDUV WC.RKKG.E ER Branchiostoma_floridae MSLITKLAD.R.V.N.N, V.FVPLT. H.VH.ECA.L.LLMIGLV WR, MEHPG.K SR Branchiostoma_floridae MALVTDLANR EIEGLV.A.A.LGM.PM D.VN.IRTV.LD.LMIGU WR, MEHPG.K SR Homo_sapiens LSSINEIGER V.VANX.A.L.FRN.F. D.NTYS.MC.SSFALS WR, VKRSSD AR Homo_sapiens LSSINEIGER V.VVX.A.L.FRN.F. E.ITI.IYS.MGFARG WR, FNV.SR PR-Homo_sapiens LSSINEIGER V.VVX.S.S.FRN.HI D.ITI.IYS.MSFGLG WR, YKHVSOD NR3E Hydra magnipapillata LK-LSHTPDI SK	NR3D_Aplysia_californica	LNTLIKLADR	E.VYL.N	нитф.т.	GVH.IECC	.MLLL.CA	.R.MEHEG.R
ER_Baranchiostoma_floridae IESVSSLVDR E.TCC.G. K, N.S. NUL.MES. L.D.LILDLV WCREKG. ERB. Homo_sapiens KR_Branchiostoma_floridae MGLTNLAD. E.V.M.S VFVL.S. FVRESC. M.VLMMGLM WR. DEPG.K. R.Branchiostoma_floridae MMSLTKLAD. E.V.M.S KFVL.S. FVRESC. M.VLMMGLM WR. DEPG.K. R.Homo_sapiens LSTINRLA. M.QVVX AFRN. HD DVN.ITS MGFAMG WR. F.NV.SR R.Homo_sapiens LSSLNELGER V.VVXC AL.FRN. HV DMAVI.YS MGFAMG WR. F.NV.SR NR3E Hydra_magnipapilata LK-LSHTFDI SK ODSD-ELGF -GLIYDOFLA LVHRTKGYKL DEEEISCFKA NR3E Hydra_tinia_symbiolongicarpus I.F.F.Y.S. TY NEAR C. ENC.IS AN.A.K.NMA.L. NR3E NR3E Podocoryna_carnea I.F.F.Y.S. TY NEAR ENVLTS. S.IA.YO.CGIFYL.I. NR3E Chironex fleckeri VA.F.SDVV DDRS.R.T.L. DSV.S.L.P. T.VRS.GFYL.I. NR3E Endrata altat VA.F.SDVV DDRS.R.T.L. DSV.S.L.P. T.VRS.GFYL.I. NR3E Chironex fleckeri VA.F.SDVV DDRS.R.T.L. DSV.S.L.P. T.VRS.GFYL.I. NR3E Chironex flecksi VA.F.SD	NR3D_Platynereis_dumerilii	L.RLI.LADM	E.VDVVN	VLF.G.E.	R.RIAI.ESC	.MLCIGAA	WR.RLN.T.F
ERA Homo_sapiens MGLLTRLADR E.V.M.N VFUL.T. HVHECA I.LIMIGLV WR. MEHPG.K ERA Homo_sapiens MMLTRLAD. E.V.M.S KFUL.T. HVH.ECA I.LIMIGLV WR. MEHPG.K SR Branchiostoma_floridae MALVTDLANR EIEGLVA. LGH.PM DVN.IRTV I.D.LMLGLV WR. MEHRG.E GR Homo_sapiens MTTINNIG, V. AVK AFRN. H. DMTYS MF.AFALG WR.YROSSAN AR Homo_sapiens LSTLNRLA., M.QVVKVL.,FKN.P. EITT.I.YS MG.SFALS WR.YKR.SO AR Homo_sapiens LSTLNRLGER V.VVK AL.FRN. HV D.MAVI YS MGFAMG WR.F.NVSR PR Homo_sapiens LTSLNQLGER V.VVK AL.FRN. HV D.MAVI YS MGFAMG WR.F.NVSR NR3F Trichoplax adhaerens V.VACDMW GH KQ.RAA.L DE.NRHAFETKYRSTSM XQ.FAL.R NR3E Hydractinia_symbiolongicarpus I.F.F.F.S. TY NEARC EN.C.IFS AN.A.K.NMAL. NR3E hopilema_esculentum TQ.F.ANLIV CE	ER_Branchiostoma_floridae	IESVSSLVDR	E.TGC.G.	KK.S.	NVL.MES.	.LD.LILDLV	WCRHKG.E
ERb Homo_sapiens MMSLTKLAD. E.V.M.SK.I.FVE.S. F.VR.ESC .M.VLMMGCM WR.DPPG.K SR Branchiostoma_floridae MMSUTKLAD. E.V.M.SK.I.FVE.S. F.VR.ESC .M.VLMMGCM WR.DPPG.K SR Branchiostoma_floridae MMIVTDLANR FIEGLVA.I.S.M.FN.HD.D.MT.INTV.LL.LIMGLU WR.MEHRG.E GR Homo_sapiens MTINNIG.R.V.AAVKA.I.FRN.H.D.MT.INTV.LL.LIMGLU WR.MEHRG.E NR Homo_sapiens LSINNEA.M.QVKVL.FRN.HD.D.MT.INTV.S.MS.FAGG WR.FNV.SR PA_Homo_sapiens LSINNEA.M.QVKVL.FRN.HD.D.INT.INTV.MG.FAMG WR.FNV.SR NR3E_Hydra_magnipapillata LK-LSHTFDI SK	ERa_Homo_sapiens	MGLLTNLADR	E.V.M.N	.VFVD.T.	HVHECA	.L.ILMIGLV	WR.MEHPG.K
SR Branchiostoma_floridae MALVTDLANR EIECLVA. JGM.PM DVN.IRTV LD.LMLGUV WR.MEHRG.E GR Homo_sapiens MTININGR. V.AAVKA. J.FRN.H. DMTYS.MF.AFALG WR.YRQSSAN MR Homo_sapiens LSTLINRLA M.QVVKVA.I.FKN.P.E.IT.I.YS.MC.SSFALS WR.YRLSS PR-Homo_sapiens LSSLNELGER .V.VVKA.I.FKN.P.E.IT.I.YS.MC.SSFALS WR.YRLSSO NR3E Hydra_magnipapillata LK-LSHTFDI SK	ERb_Homo_sapiens	MMSLTKLAD.	E.V.M.S	KFVE.S.	FVRESC	.M.VLMMGLM	WRDHPG.K
GR_Homo_sapiens MTTLINNLG.R. V.AVK AFRN.H. DMTYS .MFAFALG WE YRQSSAN MR_Homo_sapiens LSTINRLA. M.QVVK VLFKN.P. ETI.YS .MC.SSFALS WE YKH.SQ PR_Homo_sapiens LSTINRLA. M.QVVK VLFKN.P. ETI.YS .MC.SSFALS WE YKH.SQ PR_Homo_sapiens LSTINRLA. M.QVVK VLFKN.P. ETI.YS .MC.SSFALS WE YKH.SQ PR_Homo_sapiens LSTINRLA. M.QVVK VLFKN.P. ETI.YS .MC.SSFALS WE YKH.SQ NR3E_Hydra_magnipapillata LLSUVK.S. SL.FRN.HI D.ITI.YS .MSFGLG WE YKHVSQ NR3E_Hydractinia_symbiolongicarpus I.F.K.F.S. TY	SR_Branchiostoma_floridae	MALVTDLANR	EIEGLVA	.LGM.PM	DVN.IRTV	.LD.LMLGLV	WR.MEHRG.E
MR Homo_sapiens LSTLINRLA M.QVVK VLFKN.P. ETT.I.YS .MC.SFALS WR.YKH.SQ BR Homo_sapiens LSSLNELGER .V.VVK ALFFN.HV D.MAVI.YS .MGFAMG WR.F.N.VS. PR-Homo_sapiens LSSLNELGER .V.VVK ALFKN.HV D.MAVI.YS .MGFAMG WR.F.N.VS. NR3E_Hydra_magnipapilata LLSUNGLGER .V.VVK SLFRN.HI DTT.I.YS .MGFAMG WR.F.N.VS. NR3E_Hydra_magnipapilata LLSUNGLGER .V.VVK SLFRN.HI DTT.I.YS .MGFAMG WR.F.N.VS. NR3E_Hydractinia_symbiolongicarpus .V.YACDMVM GH	GR_Homo_sapiens	MTTLNMLG.R	.V.AAVK	AFRN.H.	DMTYS	.MFAFALG	WR. YRQSSAN
AR Homo_sapiens LSSINELGER .V.VVX AL.FRN.HV D.MAUI.YS MR.F.NV.SM PR Homo_sapiens 1141 H6 H7 H8 NR3E_Hydra_magnipapillata LK-LSHTFDI SK QDSF-ELGF -GLIYDQFLA LVHRTKCYKL DEEEISCFKA NR3E_Hydractinia_symbiolongicarpus I.F.KF.S. TY NEARA.L.DE.NC.IFS AA.L. DENC.IFS AA.L. AA.L. NR3E_Boliema_esculentum IQ.F.SNLIV CE ALGS.F.L. ETVHT.LSS I.N.YL.L. NR3E_Podocoryna_carnea IF.KY.S. TY DEAM ER.SVIS.SL.P. T.VVR.S.G. I.F.V.L. NR3E_Alatina_alata VA.F.SDVVV DD	MR_Homo_sapiens	LSTLNRLA	.M.QVVK	VLFKN.P.	EIT.I.YS	.MC.SSFALS	WR.YKHSQ
PR Homo_sapiens LTSUNQLGER LLSVVK.S. SL. FRN,HI D. IT.I.YS MSFCLG WR,YHYSGQ NR3E 1141 H6 H7 H8 NR3E QDST-ELCF -CLIYDQFLA LVHRTKCYKL DEETSCYL NR3E Audaerens V.YACDMVM GH	AR_Homo_sapiens	LSSLNELGER	••••••••••••••••••••••••••••••••••••••	AL. FRN. HV	DMAVI.YS	.MGFAMG	WR.F.NV.SR
1141H6H7H8NR3E Hydra magnipapillataLK-LSHTFDI SK V.YACDUVM GHODST-ELGF-GLIYDOFLA LVHRTKGYKL DEEEISCEKA KQ.RAA.L. DE.NRHAFE.TKYRSISM.KQ.FA.L.R NR3E_Hydractinia symbiolongicarpusN.YACDUVM GHKQ.RAA.L. DE.NRHAFE.TKYRSISM.KQ.FA.L.R NEARC. EN.C.IFS AN.A.K.NMA.L. POdocoryna carneaI.F.KF.S. TY.NRARC. EN.C.IFS AN.A.K.NMA.L. POHADIama esculentumTQ.F.ANLIV CEALCS.F.L. ETVHH.LSS II.V.Q.CIFV.L. NR3E_Nondia bijugaIRMV.SL FEAK.NIEE.SYLISN.A.K.NML.NR3E Alotiona bijugaIRMV.SL FEAK.NIIEE.SYLISN.A.K.NML.I.NR3E Alatina alataVA.F.SDVVV DDRM.H.T.L. DSV.S.L.PT.VRS.GFV.L.NR3E Copula sivickisiVA.F.SDVVV DDRT.R.T.L. DSV.S.L.PT.VRS.GFV.L.NR3E Copula sivickisiVA.F.SDVVV DDRS.R.T.L. DSV.S.L.PT.VRS.GFV.L.NR3E Copula sivickisiVA.F.SDVVV DDRS.R.T.L. DSV.S.L.PT.VRS.GFV.L.NR3E Copula sivickisiVA.F.SDVVV DDR.R.H.T.L. DSV.S.L.PT.VRS.GFV.L.NR3E Copula sivickisiVA.F.SDVVV DDR.R.H.T.L. DSV.S.L.PT.VRS.GFV.L.NR3E Drosophila melanogasterFADUYIM DEEGAR.AA.LEGAAALEGAAAL.RR Drosophila melanogasterFADUQU DRSWS.TVEM.TE.FE.VA. VSEOMMQHH. HKD.LLLQ.NR3D_Crassostrea gigasFADUQU DRSWS.TVEM.TE.FE.VA. VSEOMMQHH. HKD.LLLQ.NR3D_Crassostrea gigasFADUQU DRSWS.TVEM.TE.FE.VA. VSEOMMQHH. HKD.LLLQ.NR3D_Aplysia_californicaFAPDLUL	PR_Homo_sapiens	ILTSLNQLGER	.LSVVK.S.	SL., FRN. HT	D_{1}, TT_{1}, T_{2}, YS	.MSFGLG	WRL YKHVSGO
NR3EHydra magnipapillataLK-LSHTFDI SK					5		
NR3ENR3EHydractinia symbiolongicarpusI.F.KF.S. TYNEARC.IFS.AN.A.K.NMA.A.L.NR3EHydractinia symbiolongicarpusI.F.KF.S. TYNEARC.EN.C.IFS.AN.A.K.NMA.A.L.NR3EPaurelia_auritaIQ.F.SNLIV CEALGS.F.L.ETVHH.LSSII.VQCIFV.L.NR3EPadocoryna_carneaI.F.RY.S. TYDEAMEN.C.V.S.AN.A.K.NML.NR3EPadocoryna_carneaI.F.RY.S. TYDEAMEN.C.V.S.AN.A.K.NML.NR3EPadocoryna_carneaI.F.RY.S. TYDEAMEN.C.V.S.AN.A.K.NML.NR3EAlatina_alataVA.F.ADVVV DDRT.R.T.L.DSV.S.L.PT.TVRS.GFV.L.NR3EMorbakka virulentaVA.F.SDVVV DDRT.R.T.L.DSV.S.L.PT.VRN.E.NR3ECopula_sivickisiVA.F.SDVVV DDRS.R.T.L.DSV.S.L.PT.VRN.EFV.L.NR3EChironex yamaguchiVA.F.SDVVV DDRS.R.T.L.DSV.S.L.PT.VRN.EFV.L.NR3EChironex yamaguchiVA.F.ADVVV DDRS.R.T.L.DSV.S.L.PT.VRN.EFV.L.RRAHomo_sapiens.V.YAEDVIM DEEGAR.AA.LELGAALQR.LQALR.ER.YVLL.ERRb-Homo_sapiens.V.YAEDVIM DEDeck.LCHC SPELDGISRK AKKFTDMEV TK.YLL.ERR Crassostrea gigasFAEDLQL V.DECK.LCHC SPELDGISRK AKKFTDMEV TK.YLLL.NR3D_Platynereis_dumeriliiQVNFAENLHF NE	11	41		<u>H6</u>	H7		<u>H8</u>
NR3EHydractinia symbiolongicarpusI.F.KF.S. TYINEARC. ENC.IFS .AN.A.K.NMA.L.NR3EAurelia_auritaIQ.F.SNLIV CEALGS.F.L. ETVHH.LSS .II.VQCIFV.L.NR3E_Rhopilema_esculentumTQ.F.ANLIV CETLA.AF.L. ETVHT.LSS .II.VQCIFV.L.NR3E_Nanomia bijugaI.F.RY.S. TYDEAMENC.V.S. AN.A.K.NML.NR3E_Nanomia bijugaIRMV.SL .FEAK.NIEE.SYLIS .N.A.K.NI .VI.NR3E_Chironex_fleckeriVA.F.ADVVV DDRM.H.T.L.DSV.S.L.P .T.VRS.GFV.L.NR3E_Matina_alataVA.F.SDVVV DDRT.R.T. L.DSV.S.L.P .T.VRS.GFV.L.NR3E_Copula_sivickisiVA.F.SDVVV DDRS.R.T.L.DSV.S.L.P .T.VRN.EFV.L.NR3E_Copula_sivickisiVA.F.SDVVV DDRS.R.T.L.DSV.S.L.P .T.VRN.EFV.L.NR3E_Copula_sivickisiVA.F.SDVVV DDRM.H.T.L.DSV.S.L.P .T.VRN.EFV.L.RR3E_Gopula_sivickisiVA.F.SDVVV DDRM.H.T.L.DSV.S.L.P .T.VRN.EFV.L.ERRa_Homo_sapiens.A.FAEDLVL DEEGAR.AA.L .ELGAALQ .R.LQALR. ER.YVLL.ERRd_Homo_sapiens.V.YADDYIM DEDQ.K.LA. LLDNNAI.QKX.SMEK.FVTLERR Crassostrea_gigas.V.YADDYIM DEDQ.K.LA. LLDNNAI.QKKY.SM. EK.FVTL.ERR Crassostrea_gigasFAEDLQL V.DECK.LCEC SPELDGISRK .AKKFTDMEV TK.YLLLQ.NR3D_Platynereis dumeriliiQVNFAENHH NEFAEDLQL V.DR3D_Platynereis dumeriliiQVNFAENHH NE	NR3E_Hydra_magnipapillata	41 LK-LSHTFDI	SK	H6 -QDSF-ELGF	H7 -GLIYDQFLA	LVHRTKGYKL	H8 DEEEISCFKA
NR3EAUGS.F.LETVHLLSS.IT.VO.CIF.V.L.NR3EAUGS.F.LFTVHTLLSS.IT.VO.CIF.V.L.NR3EPodocoryna_carneaTL.F.RY.S. TYDEAMEN.C.V.S. AN.A.K.NML.NR3EDironexFleckeriVA.F.SDVV DDRM.H.T.L.DSV.S.L.PT.VRS.GFV.L.NR3EAlatina_alataVA.F.SDVVV DDRT.R.T.L.DSV.S.L.PT.VRS.GFV.L.NR3EAlatina_alataVA.F.SDVVV DDRT.R.T.LDSV.S.L.PT.VRS.GFV.L.NR3ECopula_sivickisiVA.F.SDVVV DDRT.R.T.LDSV.S.L.PT.VRN.EFV.L.NR3ECopula_sivickisiVA.F.SDVVV DDRS.R.T.LDSV.S.L.PT.VRN.EFV.L.NR3ECopula_sivickisiVA.F.SDVVV DDRS.R.T.LDSV.S.L.PT.VRN.EFV.L.NR3ECopula_sivickisiVA.F.ADVV DDRS.R.T.LDSV.S.L.PT.VRN.EFV.L.NR3ECopula_sivickisiVA.F.ADVV DDRS.R.A.ALLECAALQ.R.LQAR. RR.YULLRRAHomo_sapiensA.FAEDLVL DEEGAR.AALLECAALQ.R.VKY.SM. EX.FVTL.ERRCosophila_melanogasterC.FATDVWM DEHLAK.C.YTEF.YKUQ IAQ.MERISP RR.YULL.RN3DCrassostrea_gigasSLAFAPDLVL DRSSWS TVEMTS.YEEMON_QUPNH. HKOLLLQ.NR3DCalifornicaSLAFAPDLVL DRSSWS TVEMSLAFFPDLENN.YLLLQ.NR3DPlatynereis_dumeriliiQVNFAENLHF NEFARDLQU NRNTISNRNNSGCVEIWNSQOFRVIES.NH.YLLLRBBranchiosto	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens	41 LK-LSHTFDI .V.YACDMVM	SK	H6 -QDST-ELGF .KQ.R.AA.L	H7 -GLIYDOFLA .DE.NRHAFE	LVHRTKGYKL TKYRSISM	H8 DEEEISCFKA .KQ.FA.L.R
NR3E Prodocoryna RN3E Podcooryna RN3E Podcooryna RN3E Podcooryna RN3E Podcooryna RN3E Podcooryna RN3E Podcooryna RN3E Podcooryna RN3E RN3E Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina RN3E Alatina Alatina Alatina Alatina Alatina RN3E Alatina Alatina Alatina Alatina Chironex fleckeri NR3E Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatina Alatin	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus	41 LK-LSHTFDI .V.YACDMVM IF.KF.S.	SK GH TY	H6 -QDST-ELGF .KQ.R.AA.L .NEARC	H7 -GLIYDQFLA .DE.NRHAFE .ENC.IFS	LVHRTKGYKL TKYRSISM .AN.A.K.NM	H8 DEEEISCFKA .KQ.FA.L.R A.L
NR3E_Podocoryna_carnea1.F.RY.S. TYDEAMDEAMFDEAMFDEAMFDEAMF	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita	41 LK-LSHTFDI .V.YACDMVM IF.KF.S. IQ.F.SNLIV	SK GH TY CE	H6 -QDST-ELGF .KQ.R.AA.L .NEARC .ALGSF.L	-GLIYDQFLA .DE.NRHAFE .ENC.IFS .ETVHH.LSS	LVHRTKGYKL TKYRSISM .AN.A.K.NM .IT.VQCI	H8 DEFEISCFKA .KQ.FA.L.R FV.L.
NR3E_Chironez_fleckeriIRMV.SL., F	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum	41 LK-LSHTFDI .V.YACDMVM IF.KF.S. IQ.F.SNLIV TQ.F.ANLIV	SK GH TY CE CE	H6 -QDST-ELGF .KQ.R.AA.L .NEARC .ALGSF.L .TLAAF.L	-GLIYDQFLA .DE.NRHAFE .ENC.IFS .ETVHH.LSS .ETVHT.LSS	LVHRTKGYKL TKYRSISM .AN.A.K.NM .IT.VQCI .IA.VQGI	H8 DEFEISCFKA .KQ.FA.L.R FV.L V.FL.L.
NR3E_Chironex_IleckeriVA.F.ADVVV DDRM.H.T.L. DSV.S.L.PT.VKS.GF.VL.NR3E_Alatina_alataVA.F.SDVVV DDRT.R.T.L. DSV.S.L.PT.VKS.GFVLNR3E_Morbakka_virulentaVA.F.SDVVV DDRT.R.T.L. DSV.S.L.PT.VRS.GFVLNR3E_Copula_sivickisiVA.F.SDVVV DDRS.R.T.L. DSV.S.L.PT.VRN.EFVLNR3E_Chironex_yamaguchiVA.F.ADVVV DDRS.R.T.L. DSV.S.L.PT.VRN.EFVLERRa_Homo_sapiens.A.FAEDLVL DEFALLFVL.L.ERRa_Homo_sapiensFVLDUV DDRM.H.T.L. DSV.S.L.PT.VRN.GFVLL.ERRg_Homo_sapiensFVLDUV DDRS.R.T.L. LOSV.S.L.PT.VRN.GFVLL.ERRg_Homo_sapiensFVLDUV DDRM.H.T.L. DSV.S.L.PT.VRN.GFVLL.ERR_Crassostrea_gigasFVLDUV DDRM.H.T.L. LDSV.S.L.PT.VRN.GFVLL.ERR_Crassostrea_gigasFAEDLQL VFVLLFVLL.NR3D_Aplysia_californicaFVLDUV DD	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea	41 LK-LSHTFDI .V.YACDMVM IF.KF.S. IQ.F.SNLIV TQ.F.ANLIV IF.RY.S.	SK GH CE CE TY	HG -QDST-ELGF .KQ.R.AA.L .NEARC .ALGSF.L .TLA.AF.L .DEAM	-GLIYDQFLA .DE.NRHAFE .EN.C.IFS .ETVHH.LSS .ETVHT.LSS .ETVHT.LSS	LVHRTKGYKL TKYRSISM .AN.A.K.NM .IT.VQCI .IA.VQGI .AN.A.K.NM	H8 DEEEISCFKA .KQ.FA.L.R FV.L .V.FL.L. L.
NR3E_Atatina_atataVA.F.SDVVV DD	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL	SK GH CE CE TY .F	HG -QDST-ELGF .KQ.R.AA.L .NEARC .ALGS.F.L .TLA.AF.L .DEAM .EAK.NI.	-GLIYDQFLA .DE.NRHAFE .EN.C.IFS .ETVHH.LSS .ETVHT.LSS .EN.C.V.S .EESYLIS	LVHRTKGYKL TKYRSISM .AN.A.K.NM .IT.VQCI .IA.VQGI .AN.A.K.NM .N.A.K.NM	H8 DEEEISCFKA .KQ.FA.L.R FV.L. V.FL.L. L. .V.FL.L.
NR35_NOFDacka_VilutentaVA.F.SDVV DD.NR.K.T.L. DSV.S.L.P.N.V.F.S.E.NR35_Copula_sivickisiVA.F.SDVVV DD.RS.R.T.L. DSV.S.L.P.N.V.N.EFV.L.NR35_Chironex_yamaguchiVA.F.SDVVV DD.RS.R.T.L. DSV.S.L.PFV.L.NR35_Chironex_yamaguchiVA.F.ADVVV DD.RS.R.T.L. DSV.S.L.PFV.L.ERRa_Homo_sapiens.A.FAEDLVL DE.EGAR.AA.LELGAAL.QR.LQALR. ERYVLL.ERRg_Homo_sapiens.V.YAEDYIM DE.DQ.K.LA.L.LEL.RAI.QR.Y.KL.V EKFVTL.ERR_Torsophila_melanogaster.V.YADDYIM DE.DQ.K.LA.L.LDLNNAI.QKKY.SM. EKFVTL.ERR_Crassostrea_gigasFAEDLQL.V.DECK.LCHC SPELDGISRK AKKFTDMEV TKYLLLQ.NR3D_Crassostrea_gigasSLAFAPDLVL DRSWS.TVEM. TE.FE.VA. VSEQMUPH. HKD.LLLQ.NR3D_Platynereis_dumeriliiQVNFAENLHF NEGWA.LT.M. DVLE.VS. VSEQMLLHG. NKLLLQ.NR3D_Platynereis_dumeriliiQVNFAENLHF NEGWA.LT.M. DZGKCVE.M. VE.F.ML. TSS.FRMMN. QG.FV.LSER_Homo_sapiens-LIFAPNLLL DR.NQGKCVE.M. VE.F.ML. TSS.FRMMN. QG.FV.LSGHAPDLVL NR.NQGKCVE.M. YZLCPM.E FARQFADLQV PQ.VYV.L.SR_Branchiostoma_floridaeWLVFAPDLLM DR.SLCR.LS.M. EY.CTPM.E FARQFADLQV SYYL.M.TCFAPDLI.NECFAPDLVF NEFMLQCM YZCCMHQ ISLQFVRLQ YY.LL.R_Homo_sapiens.LCFAPDLVF NECFAPDLVF NEFMLQCM YZCCCMHQ ISLQFVRLQ YY.LLFRLV.V.R_Homo_sapiens.LCFAPDLVF NEFMLQCM YZCCCMHQ ISLQFVRLQ YY.LLFRLV.V.V.R_Homo_sapiensCFAPDLVF NEFRMLQSAM YELCQGMHQ ISLQFVRLQ YY.L.M.T <td>11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri</td> <td>41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.ADVVV</td> <td>SK GH CE CE F DD</td> <td>H6 -QDST-ELGF .KQ.R.AA.L .NEARC .ALGSF.L .TLAAF.L .DEAM .EAK.NI .RM.H.T.L</td> <td>-GLIYDQFLA .DE.NRHAFE .EN.C.IFS .ETVHH.LSS .ETVHT.LSS .EN.C.V.S .EESYLIS .DSV.S.L.P</td> <td>LVHRTKGYKL .TKYRSISM .AN.A.K.NM .IT.VQCI .AN.A.K.NM .N.A.K.NM .T.VRS.G.</td> <td>H8 DEEEISCFKA .KQ.FA.F.R FV.L. </td>	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.ADVVV	SK GH CE CE F DD	H6 -QDST-ELGF .KQ.R.AA.L .NEARC .ALGSF.L .TLAAF.L .DEAM .EAK.NI .RM.H.T.L	-GLIYDQFLA .DE.NRHAFE .EN.C.IFS .ETVHH.LSS .ETVHT.LSS .EN.C.V.S .EESYLIS .DSV.S.L.P	LVHRTKGYKL .TKYRSISM .AN.A.K.NM .IT.VQCI .AN.A.K.NM .N.A.K.NM .T.VRS.G.	H8 DEEEISCFKA .KQ.FA.F.R FV.L.
NR35_IIIpedalla_CystopholaVA.F.SDVV DD.RS.K.I.L DSV.S.L.PI.I.VAN.E.NR35_Copula_sivickisiVA.F.SDVV DD.RS.K.I.L DSV.S.L.PI.I.VAN.E.NR35_Chironex_yamaguchiVA.F.ADVVV DD.RS.R.T.L DSV.S.L.PI.I.VRN.E.ERRa_Homo_sapiens.A.FAEDLVL DE.EGAR.AA.L .ELGAAL.Q .R.LQALR. ER.YVLL.ERRb_Homo_sapiens.V.YAEDYIM DE.DQ.K.LA.L LDLNNALQKY.SM. EK.FVTL.ERR_Drosophila_melanogaster.V.YADDYIM DE.DQ.K.LA.L LDLNNALQKY.SM. EK.FVTL.ERR_Crassostrea_gigasFAEDLQL .V.DECK.LCHC SPELDGISRK .AKKFTDMEV TKYLLLQ.NR3D_Crassostrea_gigasFAEDLQL .V.DECK.LCHC SPELDGISRK .AKKFTDMEV TKYLLLQ.NR3D_Plysia_californicaTLVFAPD.HL ERQWA.LT.M. DVLE.VS. VSEQMLHG.NKLLLQ.NR3D_Platynereis_dumeriliiQVNFAENLHF NE.ETAK.KAKM .SS.VGEIWQ ISQQFRYLE. SNH.FMLLRVER_Homo_sapiens-LIFAPNLLL DR.NQGKCVE.M. VE.K.I.T.S.FREL. QHK.YLL.SR_Branchiostoma_floridaeKLL.GGVLV NRNTISNRRN NSSGD.DMEV .LEMCI.S IATKFYEFD .QR.YL.V.SR_Branchiostoma_floridaeWLVFAPDLHL DR.DEGKCVE.M. VE.F.ML. TSS.FRMMN. QG.FV.LSR_Homo_sapiens.LICFAPDLIV DR.SLCR.LS.M. EY.CTPM.E FARQFADLQV PQ.VYV.L.GR_Homo_sapiens.LCFAPDLIV NEKML.PCM .YQCCKHM.Y VSSELHRLQV SYYL.M.TR_Homo_sapiens.LCFAPDLVF NEKMH.QSAM .YELCQGMHQ ISLQFVKLQ SYYL.M.TR_Homo_sapiensLCFAPDLVF NEKMK.SSYSLCTTMVQ IPQEFVKLQV SQFL.M.VR_Homo_sapiensLFAPDLVF NEKMK.VCVX.RH. SQECFKLQV SQFL.M.VR_Homo_sapiensLFAPDLVF NEKMKVSSYSLCTTMVQ IPQEFV	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.ADVVV VA.F.SDVVV	SK GH CE CE TY F DD DD	HG -QDST-ELGF .KQ.R.AA.L .NEARC .ALGSF.L .TLAAF.L .DEAM .EAK.NI .EAK.NI .EAK.NI .EAK.NI	-GLIYDQFLA .DE.NRHAFE .ENC.IFS .ETVHH.LSS .ETVHT.LSS .EESYLIS .DSV.S.L.P .DSV.S.L.P	LVHRTKGYKL .TKYRSISM .AN.A.K.NM .IT.VQCI .IA.VQ.GI .AN.A.K.NM .N.A.K.NM .T.VRS.G. .T.VRS.G.	H8 DEEEISCFKA .KQ.FA.L.R FV.L. .V.FL.L. .V.FL.L. .VI. FV.L. FV.L.
NR35_COpula_SIVICAISIVA.F.SDVV DD.RS.K.I.L DSV.S.L.FI.I.VAN.E.ERR3_Homo_sapiensVA.F.ADVVV DD.RM.H.T.L DSV.S.L.PT.VRS.GFV.L.ERR4_Homo_sapiensFAEDLVL DE.EGAR.AA.LELGAAL.QR.LQALR. ERYVLL.ERR5_Homo_sapiens.V.YAEDYIM DE.DQ.K.LA.L .LDLNNAI.QKKY.SM. EKFVTL.ERR Drosophila melanogasterFAEDLQL V.DECK.LCHC SPELDGISRK .AKKFTDMEV TKYLLL.ERR_Crassostrea_gigasFAEDLQL V.DECK.LCHC SPELDGISRK .AKKFTDMEV TKYLLL.NR3D_Aplysia_californicaTLVFAPD.HL ERQWA.LT.M. DVLE.VS. VSEQMLLHG NKLLLQ.NR3D_Platynereis_dumeriliiQVNFAENLHF NEFAK.KARM .SS.VGELWQ ISQCFRYLE. SNI.FM.LRVERa_Homo_sapiens-LLFAPNLLU DR.NGGKCVE.M. VE.F.ML TSS.FRMIN. QGFVL.S.SR_Branchiostoma_floridaeKLL.GGVLV NRNTISNRRN NSGD.DMEV .LEMCI.S IATKFYEFD. QRR.YL.L.SR_Branchiostoma_floridaeLLFAPDLVL DR.DEGKCVE.M. VE.F.ML TSS.FRMIN. QG.FVL.S.SR_Branchiostoma_floridaeLFAPDLVL DR	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.ADVVV VA.F.SDVVV VA.F.SDVVV	SK GH CE TY F. DD DD DD	H6 -ODST-ELGF .KQ.R.AA.L .NEARC .ALGS.F.L .TLA.AF.L .EAK.NI .RM.H.T.L .RT.R.T.L .MT.R.T.L	H7 -GLIYDQFLA .DE.NRHAFE .ENC.IFS .ETVHH.LSS .ETVHT.LSS .EESYLIS .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P	LVHRTKGYKL TKYRSISM .AN.A.K.NM .IT.VQCI .AN.A.K.NM .N.A.K.NI .N.A.K.NI .T.VRS.G. T.VRS.G. T.V.S.E. T.V.S.E.	H8 DEEEISCFKA .KQ.FA.L.R FV.L. .V.FL.L. .V.FL.L. .VI. FV.L. FV.L. FV.L.
NRSE_Chillonex_yanaguchiVAFABDVV DDDEDSVS1D.FTIVRSG. T.FVLL.ERRa_Homo_sapiens.A.FAEDLVL DE.EGAR.AA.LELGALL QR.LQALR. ERYVLL.ERRb_Homo_sapiens.V.YAEDYIM DE.DQ.K.LA.L .LEL.RAI.QR.Y.KL.V EKFVTL.ERRg_Homo_sapiens.V.YADDYIM DE.DQ.K.LA.L .LDLNNAI.QKKY.SM EKFVTL.ERR Drosophila_melanogaster.C.FATDVWM DE.DQ.K.LA.L .LDLNNAI.QKKY.SM EKFVTL.ERR_Crassostrea_gigasFAEDLQL .VDECK.LCHC SPELDGISRK .AKKFTDMEV TK.YLLL.NR3D_Crassostrea_gigasFAEDLVL DR.SSWS.TVEM .TE.FE.VA. VSEQMUNH .KKY.LLLQ.NR3D_Playsia_californicaTLVFAPD.HL ER.QWA.LT.MDVLE.VS. VSEQMLLHG. NKLLLQ.NR3D_Platynereis_dumeriliiQVNFAENLHF NE.ETAK.KAKM .SS.VGEEWQ ISQQFRYLE. SNH.FMLRVER_Branchiostoma_floridaeKLL.GGVLV NRNTISNRRN NSSGD.DMEV .LEMCI.S IATKFYEFD. QRR.YL.L.SR_Branchiostoma_floridae.LIFAPDLVL DR.NQGKCVE.M .VE.F.ML. TTS.FREL. QHK.YL.V.SR_Branchiostoma_floridae.LIFAPDLVL DR.SLCR.LS.M .EY.CTPM.E FARQFADLQV PQ.VYV.L.GR_Homo_sapiens.LCFAPDLIL NE.RMH.LCM .YDQCKHM.Y VSSELHRLQV SYYL.M.TRM_Homo_sapiens.LCFAPDLVF NE.RMH.LCM .YSQCVRNH .SQEFGVLQ TFYTIM.VRR_Homo_sapiens.MLYFAPDLVF NE.YPMH.KSRM .YSQCVRNH .SQEFGVLQ TFYTIM.VRR_Homo_sapiens.MLYFAPDLVF NE.YRMH.KSSLRR_HOMO_sapiens.MLYFAPDLVF NE.YRMH.KSSLRR_HOMO_Sapiens.MLYFAPDLVF NE.YRMH.KSSLRR_HOMO_Sapiens.MLYFAPDLVF NE.YRMH.KSSLRR_HOMO_Sapiens.MLYFAPDLVF NE.YRMH.KSSL <td>11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NB2E_Corwla_circici</td> <td>41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.ADVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV</td> <td>SK GH CE CE F DD DD DD DD DD DD DD DD DD DD</td> <td>HG -QDST-ELGF .KQ.R.AA.L .NEARC .ALGSF.L .TLA.AF.L .DEAM .RM.H.T.L .RT.R.T.L .RT.R.T.L .RS.R.T.L .RS.R.T.L</td> <td>H7 -GLIYDQFLA .DE.NRHAFE .ENC.IFS .ETVHH.LSS .ETVHT.LSS .ETVHT.LSS .ENC.V.S .ESV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P</td> <td>LVHRTKGYKL TKYRSISM .AN.A.K.NM .IT.VQCI .IA.VQ.GI .AN.A.K.NM .N.A.K.NI .T.VRS.G. .T.VRS.G. .T.V.S.E. .T.VRN.E.</td> <td>H8 DEEEISCFKA .KQ.FA.L.R A.L. FV.L. .V.FL.L. .V.FL.L. FV.L. FV.L. FV.L. FV.L.</td>	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NB2E_Corwla_circici	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.ADVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV	SK GH CE CE F DD DD DD DD DD DD DD DD DD DD	HG -QDST-ELGF .KQ.R.AA.L .NEARC .ALGSF.L .TLA.AF.L .DEAM .RM.H.T.L .RT.R.T.L .RT.R.T.L .RS.R.T.L .RS.R.T.L	H7 -GLIYDQFLA .DE.NRHAFE .ENC.IFS .ETVHH.LSS .ETVHT.LSS .ETVHT.LSS .ENC.V.S .ESV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P	LVHRTKGYKL TKYRSISM .AN.A.K.NM .IT.VQCI .IA.VQ.GI .AN.A.K.NM .N.A.K.NI .T.VRS.G. .T.VRS.G. .T.V.S.E. .T.VRN.E.	H8 DEEEISCFKA .KQ.FA.L.R A.L. FV.L. .V.FL.L. .V.FL.L. FV.L. FV.L. FV.L. FV.L.
BRRA_HOMO_Sapiens	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Copula_sivickisi	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.ADVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV	SK GH CE CE .F DD DD DD DD DD DD DD DD DD DD DD DD	HG -QDST-ELGF .KQ.R.AA.L .NEARC .ALGSF.L .DEAM .EAK.NI .RT.R.T.L .MT.R.T.L .RS.R.T.L .RS.R.T.L .RS.R.T.L	-GLIYDQFLA .DE.NRHAFE .EN.C.IFS .ETVHH.LSS .ETVHT.LSS .EN.C.V.S .EESYLIS .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P	LVHRTKGYKL .TKYRSISM .AN.A.K.NM .IT.VQCI .AN.A.K.NM .N.A.K.NI .T.VRS.G. .T.VRS.G. .T.V.S.E. .T.VR.S.E. .T.VRN.E. .T.VRN.E.	H8 DEEEISCFKA .KQ.FA.L.R FV.L. FV.L.
BRKD_HOMO_Sapiens.V.YADDYIM DEDQ.K.LA.L. LDLNNALQKYY.SM EX.FVILERRg_Homo_sapiens.V.YADDYIM DEDQ.K.LA.L. LDLNNALQKYY.SM EX.FVILERR_Drosophila_melanogaster.C.FATDVWM DEDQ.K.LA.L. LDLNNALQKYY.SM EX.FVILERR_Crassostrea_gigasFAEDLQL .VDECK.LCHC SPELDGISRK .AKKFTDMEV TKYLLNR3D_Crassostrea_gigasFAEDDLVL DRSSWS.TVEM .TE.FE.VA. VSEQMUDH. HKD.LLLQ.NR3D_Platynereis_dumeriliiQVNFAENLHF NEWRTISNRN NSSGD.DMEV .LEMC.I.S IATKFYEFD. QR.YLL.ERa_Homo_sapiens-LIFAPNLLL DRDEGKCVE.M .VE.F.ML. TSS.FRMMN. QG.FVL.SERb_Homo_sapiens-LIFAPDLVL DRDEGKCVE.M .YVE.F.ML. TSS.FRMNN. QG.FVL.SSR_Branchiostoma_floridaeWLVFAPDLLM DRDEGKCVE.M .YZ.CTPM.E FARQFADLQV PQ.VYV.LGR_Homo_sapiens.LCFAPDLI.N NEKML.LPCM .YQCKHM.Y VSSELHRLQV SYYL.M.TMR_Homo_sapiens.LCFAPDLVF NEEKMH.QSAM .YELCQGMHQ ISLQFFWLQ TFYTIM.VRF_Homo_sapiensMLYFAPDLVF NE	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.ADVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.ADVVV VA.F.ADVVV	SK GH CE TY DD DD DD DD DD DD DD DD DD DD DD DD DF.	H6 -QDST-ELGF .KQ.R.AA.L .NEARC .ALGS.F.L .TLA.AF.L .DEAM .EAK.NI .RM.H.T.L .RT.R.T.L .RS.R.T.L .RS.R.T.L .RS.R.T.L .RM.H.T.L	-GLIYDOFLA .DE.NRHAFE .ENC.IFS .ETVHH.LSS .ETVHT.LSS .ENC.VS .EESYLIS .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P	LVHRTKGYKL .TKYRSISM .AN.A.K.NM .IT.VQCI .IA.VQ.GI .AN.A.K.NM .N.A.K.NM .T.VRS.G .T.VRS.G .T.VRS.G .T.VRN.E .T.VRN.E .T.VRN.E .T.VRN.E .T.VRS.G	H8 DEEEISCFKA .KQ.FA.L.R FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L.
ERR_Drosophila_melanogaster.C.FATDVWM DEHLAK.C.Y .TEF.YHLVQ IAQ.MERISP RRYVLLERR_Crassostrea_gigasFAEDLQL .VHLAK.C.Y .TEF.YHVQ IAQ.MERISP RRYVLLNR3D_Crassostrea_gigasFAEDLQL .VDECK.LCHC SPELDGISRK .AKKFTDMEV TKYLLL.NR3D_Aplysia_californicaSLAFAPDLVL DR	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Nanomia_bijuga NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.ADVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.ADVVV A.FAEDLVL V.A.FAEDLVL	SK GH. TY CE TY DD. DD. DD. DD. DD. DD. DD.	HG -QDST-ELGF .KQ.R.AA.L .NEARC .ALGS.F.L .TLA.AF.L .EAK.NI .EAK.NI .RM.H.T.L .RS.R.T.L .RS.R.T.L .RS.R.T.L .RS.R.T.L .EGAR.AA.L	H7 -GLIYDQFLA .DE.NRHAFE .EN.C.IFS .ETVHH.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ET	LVHRTKGYKL .TKYRSISM .AN.A.K.NM .IT.VQCI .AN.A.K.NM .N.A.K.NM .T.VRS.G. .T.VRS.G. .T.VRS.G. .T.VRN.E. .T.VRN.E. .T.VRN.E. .R.LQALR. .R.LQALR.	H8 DEEEISCFKA .KQ.FA.L.R FV.L. .V.FL.L. .V.FL.L. .VI. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L.
Brkerboscomila_metanogaterFABDUQLVIndex.C.1IFFINOVQIAQ.HENTIFYRTILL.NR3D_Crassostrea_gigasFABDUQLVDECK.LCHCSPELDGISRKA.KKFTDMEVTKYLLL.NR3D_Aplysia_californicaSLAFAPDLVLDRSSWS.TVEM.TE.FE.VA.VSEQMMONH.HKD.LLLLQ.NR3D_PlatynereisdumeriliiQVNFAENLHFNEFABDVQLQWA.LT.MDVLE.VS.VSEQMLLHG.NKLLLQ.NR3D_PlatynereisdumeriliiQVNFAENLHFNEETAK.KARM.SSVGDUVISQQFRYLE.SME.FMLRVER_Branchiostoma_floridaeKLL.GGVLVNRNTISNRRNNSSGD.DMEVLEMCI.SIATKFYEFD.QRR.YL.L.ERb_Homo_sapiens-LLFAPNLLLDRNQGKCVE.MVE.F.ML.TS.FRMIN.QG.FYLLSERb_Homo_sapiens-LIFAPDLVLDRDEGKCVE.ILE.F.ML.TS.FREL.QHK.YL.V.SR_Branchiostoma_floridaeWLVFAPDLLMDRSLCR.LS.MEY.CTPM.EFARQFADLQVPQ.VYV.L.GR_Homo_sapiens.LCFAPDLINEEKMH.QSAMYSQCVKNRHSQEFGWLQITF.YIM.VMR_Homo_sapiensMLYFAPDLVFNEYRMH.KSRMYSQCVKNRHSQEFGWLQITF.YIM.VPR_Homo_sapiensMLYFAPDLVFNEYRMH.KSRMYSQCVKNRHSQEFGWLQITF.YIM.VPR_Homo_sapiensMLYFAPDLVFNEYRMH.KSSNYSQCVKNRHSQEFGWLQITF.YIM.VPR_Homo_sapiensMLYFAPDLVFNEYRMH.KSSNYSQCVKNRH <td>11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Direnex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens</td> <td>41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. 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ERb Homo_sapiens -LIFAPDLVL DR DEGKCVE.I .LE.F.ML. TTS.FREL. QHA.YL.V. SR_Branchiostoma_floridae WLVFAPDLLM DR SLCR.LS.M .EY.CTPM.E FARQFADLQV PQ.VYV.L. GR Homo_sapiens .LCFAPDLI. NE RMLPCM .YDQCKHM.Y VSSELHRLQV SYYL.M.T MR_Homo_sapiens FLYFAPDLVF NE FKMH.QSAM .YELCQGMHQ ISLQFFWLQV TFYTIM.V PR_Homo_sapiens MLYFAPDLVF NE YRMK.KSS PR_Homo_sapiens MLYFAPDLUI NE	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Tripedalia_cystophora NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRB_Homo_sapiens ERRG_Homo_sapiens ERRG_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER Branchiostoma_floridae	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV I.F.SDVVV VA.F.SDVVV VA.F.SDVVV I.F.SDVVV VA.F.SDVVV VA.F.SDVVV I.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV I.F.SDVVV VA.F.SDVVV VA.F.SDVVV I.S.FAEDLVL SLAFAPDLVL TLVFAPD.HL QVNFAENLHV	SK GH CE CE DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DE N N	HG -QDST-ELGF .KQ.R.AA.L .NEARC .ALGSF.L .TLAAF.L .DEAM .EAK.NI .RT.R.T.L .RT.R.T.L .RS.R.T.L .RS.R.T.L .RS.R.T.L .EGAR.AA.L .EGAR.AA.L .EH.R.LA.L .DQ.K.LA.L .HLAKC.Y .DECK.LCHC .SSWS.TVEM .QWA.LT.M .SSGD_DMFM	-GLIYDQFLA .DE.NRHAFE .ENC.IFS .ETVHH.LSS .ETVHT.LSS .ENC.V.S .EESYLIS .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .LELGAALQ .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q SPELDGISRK .TE.FE.VA .DVLE.VS .SS.VGEIWQ LEEW.LS	LVHRTKGYKL .TKYRSISM .AN.A.K.NM .IT.VQCI IA.VQGI .AN.A.K.NI .T.VRS.G. .T.VRS.G. .T.VRS.G. .T.VRS.G. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .R.LQALR. .R.Y.KL.V .KKY.SM. IAQ.MERISP .AKKFTDMEV VSEQMILHG. ISQQFRYLE.	H8 DEEEISCFKA .KQ.FA.L.R FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L.
SR_Branchiostoma_floridae WLVFAPDLLM DR	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRB_Homo_sapiens ERRG_Homo_sapiens ERRC_Tassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERB_Homo_sapiens	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.ADVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV I.F.F.SDVVV VA.F.SDVVV VA.F.SDVVV I.F.ADUVU .C.FATDVMM FAEDLQL SLAFAPDLVL TLVFAPD.HL QVNFAENLHF KLL.GGVLV LIFAPNLL	SK GH CE TY DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DE DE DE DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR	H6 -QDST-ELGF .KQ.R.AA.L .NEARC .ALGS.F.L .TLA.AF.L .DEAM .EAK.NI .RT.R.T.L .RT.R.T.L .RS.R.T.L .RS.R.T.L .EGAR.AA.L .EH.R.LA.L .DQ.K.LA.L .HLAK.C.Y .DECK.LCHC .SSWS.TVEM .QWA.LT.M .ETAK.KAKM	-GLIYDQFLA .DE.NRHAFE .ENC.IFS .ETVHH.LSS .ETVHT.LSS .ETVHT.LSS .ENC.VS .EESYLIS .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .LELGAAL.Q .LEL.RAI.Q .LEL.RAI.Q .LDLNNAI.Q .TEF.YHCVQ .SPELDGISKK .TE.FE.VA. .DVLE.VS .SS.VGEIWQ .VE.F.ML	LVHRTKGYKL .TKYRSISM .AN.A.K.NM IT.VQCI IA.VQ.GI .AN.A.K.NI .T.VRS.G .T.VRS.G .T.VRS.G .T.VRS.G .T.VRS.G .T.VRN.E .T.VRN.E .T.VRN.E .T.VRN.E .R.LQALR .R.Y.KL.V .KKY.SM .IAQ.MERISP .AKKFTDMEV VSEQMAQNH. VSEQMAQNH. VSEQMAQNH. ISQFRYLE IATKFYEFD.	H8 DEEEISCFKA .KQ.FA.L.R FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. EX.FVL. EX.FVTL. EX.FVTL. EX.FVTL. TX.YLLL TX.YLL. NK.LLLLQ. SNH.FMLLRV QRR.YL.L. OG.FV.L.S
GR_Homo_sapiens .LCFAPDLI. NE	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Ahvelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Chironex_yanaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERRg_Homo_sapiens ERRC_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERR_Homo_sapiens ERR_Homo_sapiens	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.ADVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VI.F.SDVVV VA.F.SDVVV VI.F.SDVVV VI.F.SDVVV VI.F.SDVVL FAEDLQL SLAFAPDLVL -LIFAPNLLL -LIFAPDLVL	SK GH. TY CE. CE. TY. DD. DD. DD. DD. DD. DD. DD. DD. DD. D	HG -QDST-ELGF .KQ.R.AA.L .NEARC .ALGSF.L .TLA.AF.L .DEAM .EAK.NI .EAK.NI .RT.R.T.L .RS.R.T.L .RS.R.T.L .RS.R.T.L .RS.R.T.L .EH.R.LA.L .DQ.K.LAAL .HLAK.C.Y .DECK.LCHC .SWS.TVEM .QWA.LT.M .DECK.KAKM NSSGD.DMEV .NQGKCVE.M .DEGKCVE.M	HT -GLIYDQFLA .DE.NRHAFE ENC.IFS .ETVHH.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ETVHT.LSS .ES.SYLIP .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .SS.VGLIQ .ELE.FE.VA .DVLE.VS .SS.VGEIWQ .LEF.F.ML .LE.F.ML	LVHRTKGYKL .TKYRSISM .AN.A.K.NM IT.VQ.CI IA.VQ.GI .AN.A.K.NM .N.A.K.NM .T.VRS.G. .T.VRS.G. .T.VRS.G. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .R.VQALR. .R.Y.KL.V .KKY.SM. IAQ.MERISP .AKKFTDMEV VSEQMILHG. ISQQFRYLE. IATKFYEFD. TSS.FRMIN.	H8 DEEEISCFKA .KQ.FA.L.R FV.L. .V.FL.L. .V.FL.L. .V.FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. EXFVTL. EXFVTL. EXFVTL. RRYYLL. HKD.LLLLQ. SNH.FMLLRV QGFV.L.S OHK.YL.V.
MR_Homo_sapiens FLYFAPDLVF NE EKMH.QSAM .YELCQGMHQ ISLOFVRLQ. TFYTIM.V AR_Homo_sapiens MLYFAPDLVF NE	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRb_Homo_sapiens ERRb_Homo_sapiens ERR_Drosophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens ERB_Homo_sapiens SR Branchiostoma_floridae	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VVFAPDLVL MVFAPDLVL	SK GH CE .F DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD	H6 -QDST-ELGF KQ.R.AA.L .NEARC ALGSF.L DEAM .EAK.NI RM.H.T.L .RT.R.T.L .RS.R.T.L .RS.R.T.L .RS.R.T.L .RS.R.T.L .RS.R.T.L .EGAR.AA.L .EGAR.AA.L .EGAR.AA.L .EL.R.LA.L .DECK.LCHC .SSWS.TVEM .QWA.LT.M .ETAK.KAKM NSSGD.DMEV .NQSKCVE.M .SLCR.LS.M	-GLIYDQFLA .DE.NRHAFE ENC.IFS .ETVHH.LSS .ETVHT.LSS .ETVHT.LSS .ENC.V.S .EESYLIS .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .ELGAAL.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.F.YLCQ .SPELDGISRK .TE.FE.VA. .SS.VGEIWQ .LEMC.I.S .VE.F.ML. .EY.CTPM.FE	LVHRTKGYKL .TKYRSISM .AN.A.K.NM .IT.VQCI .AN.A.K.NM .N.A.K.NI .T.VRS.G. .T.VRS.G. .T.VRS.G. .T.VR.S.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.G. .R.LQALR. .R.Y.KL.V .KKY.SM. .IAQ.MERISP .AKKFTDMEV VSEQMMQNH. VSEQMILHG. ISQQFRYLE. IATKFYEFD. TSS.FREMM. TSS.FREL. FAROFADLOV	H8 DEEEISCFKA .KQ.FA.L.R FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. ERFVLL. ERFVTL. ERFVTL. ERFVTL. ERFVTL. ERFVTL. ERFVTL. ERFVTL. SNH.FMLIRV QRYLLL. QGFV.L.S. QHK.YL.V.
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PR_Homo_sapiens MLYFAPDLIL NE	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Rhopilema_esculentum NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Alatina_alata NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_ymaguchi ERRa_Homo_sapiens ERRg_Homo_sapiens ERRg_Homo_sapiens ERRg_Homo_sapiens ERRg_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens SR_Branchiostoma_floridae GR_Homo_sapiens MR Homo_sapiens	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.ADVVV A.FAEDLVL V.YAEDYIM FAEDLVL SLAFAPDLVL TLVFAPDLM .LIFAPDLIM .CFAPDLIN FLYFAPDLVE	SK GH CE CE TY DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD	HG -QDST-ELGF .KQ.R.AA.L .NEARC .ALGS.F.L .TLA.AF.L .DEAM .EAK.NI .RT.R.T.L .RT.R.T.L .RS.R.T.L .RS.R.T.L .RS.R.T.L .RS.R.T.L .EGAR.AA.L .EH.R.LA.L .DQ.K.LA.L .HLAK.C.Y .DECK.LCHC .SSWS.TVEM .QWA.LT.M .SSGD.DMEV .NQGKCVE.M .NQGKCVE.M .RM.LPCM .EKM.OSAM	-GLIYDQFLA .DE.NRHAFE ENC.IFS .ETVHH.LSS .ETVHT.LSS .ETVHT.LSS .ENC.VS .EESYLIS .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .LELGAALQ .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEL.RAI.Q .LEV.CTPM.E .E .YDQCKHM.Y .YELCOGMHO	LVHRTKGYKL .TKYRSISM .AN.A.K.NM .IT.VQCI .AN.A.K.NM .N.A.K.NI .T.VRS.G. .T.VRS.G. .T.VRS.G. .T.VRS.G. .T.VRN.E. .T.VRN.E. .T.VRN.E. .R.LQALR. .R.Y.KL.V .KKY.SM. IAQ.MERISP .AKKFTDMEV VSEQMLHG. ISQQFRYLE. IATKFYEFD. TSS.FRMMN. TTS.FREL. FARQFADLQV VSSELHRLQV ISLOFVRLO.	H8 DEEEISCFKA .KQ.FA.L.R FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. RR.YVLL. EK.FVTL. EK.FVTL. RR.YVLL. K.LLLQ. NK.LLLLQ. NK.LLLLQ. SNH.FMLLRV QRR.YL.L. QG.FV.L.S QHK.YL.V. SY.YL.M.T TF.YTIM.V
	11 NR3E_Hydra_magnipapillata NR3F_Trichoplax_adhaerens NR3E_Hydractinia_symbiolongicarpus NR3E_Aurelia_aurita NR3E_Podocoryna_carnea NR3E_Podocoryna_carnea NR3E_Nanomia_bijuga NR3E_Chironex_fleckeri NR3E_Morbakka_virulenta NR3E_Morbakka_virulenta NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Copula_sivickisi NR3E_Chironex_yamaguchi ERRa_Homo_sapiens ERRB_Homo_sapiens ERRG_Homo_sapiens ERRG_Torsoophila_melanogaster ERR_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Crassostrea_gigas NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERA_Homo_sapiens ERB_Homo_sapiens ERB_Homo_sapiens SR_Branchiostoma_floridae GR_Homo_sapiens MR_Homo_sapiens AR Homo_sapiens	41 LK-LSHTFDI .V.YACDMVM I.F.KF.S. IQ.F.SNLIV TQ.F.ANLIV I.F.RY.S. IRMV.SL VA.F.ADVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV I.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VA.F.SDVVV VI.F.SDVVV SILFAPDLVL SILFAPDLVL SILFAPDLVF MLYFAPDLVF MLYFAPDLVF	SK GH CE CE TY DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD DD N NR.NTI SNRRN DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR DR	H6 -QDST-ELGF .KQ.R.AA.L .NEARC .ALGS.F.L .TLA.AF.L .DEAM .EAK.NI .RM.H.T.L .RT.R.T.L .RS.R.T.L .RS.R.T.L .RS.R.T.L .EGAR.AA.L .EH.R.LA.L .QWA.LT.M .ETAK.KAKM NSSGD.DMEV .QWA.LT.M .ETAK.KAKM NSSGD.DMEV .QWA.LT.M .ETAK.KAKM .SCR.LS.M .RM.LPCM .EKMH.QSAM .YRMH.KSRM	-GLIYDQFLA .DE.NRHAFE .ENC.IFS .ETVHH.LSS .ETVHT.LSS .ETVHT.LSS .ENC.VS .EESYLIS .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .DSV.S.L.P .LELGAALQ .LEL.RAIQ .LEL.RAIQ .LEL.RAIQ .LEL.RAIQ .LEL.RAIQ .EL.F.YHCVQ .SS.VGEIWQ .LEMC.I.S .VE.F.ML. .E.F.ML. .E.F.ML. .EY.CTPM.E .YDQCKHM.Y .YSQCVRMRH	LVHRTKGYKL .TKYRSISM .AN.A.K.NM .IT.VQCI .IA.VQGI .AN.A.K.NM .N.A.K.NI .T.VRS.G. .T.VRS.G. .T.VRS.G. .T.VRS.G. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .T.VRN.E. .S.EFR.MMU.T. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.EFR.C. .S.	H8 DEEEISCFKA .KQ.FA.L.R FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. FV.L. EX.FVL. EX.FVTL. EX.FVTL. EX.FVTL. EX.FVTL. QRR.YLL. QG.FV.LS QHK.YL.V. PQ.VYV.L. SY.YL.M.T TFL.YTIM.V TFQ.FL.M.

12	H8		H	9	Н	10-H11
NR3E Hydra magnipapillata	IILTNAETTO	LSRP	AKVHALSN	OFCSSLOYYT	KNRHKE	NPLKFAKIVL
NR3F Trichoplax adhaerens	LR~					
NR3E Hydractinia symbiolongicarpus	.ssss	.AG	END.IT	T.S.T	NSR.	QL
NR3E_Aurelia_aurita	.G.L.DSRG	.TGA	QD.V.	K.SLA.N.HI	SSQPD	Q.QI.
NR3E_Rhopilema_esculentum	.G.L.DSRG	.TGS	QE.VK	K.S.A.N.HI	SSHPD	Q.QI.
NR3E_Podocoryna_carnea	.G	v	DN.NE.IT	T.S.T	SSRD	QL
NR3E_Nanomia_bijuga	.N	.TTS	DNE.IQ	K.T.AS	T. S R.	S.QL
NR3E_Chironex_fleckeri	.G.M. DSCG		RG.QE.VR	KYSMA.A.HI	SSYPD	K.Q
NR3E_Alatina_alata	.G.M. DSCG		RG.QE.VR	KYSMA.M.HI	STYPD	K.Q
NR3E_MOTDAKKa_VIrulenta	G.M. DSCG	···GS	RG.QE.VR	KISMA.T.HI		K.Q
NRSE_TIIpedalla_Cystophora	C M DSCG		PC OF VR	KISMA.T.HI		N .Q
NR3E_Copula_Sivierisi	G M DSCG	GS	RG OF VR	KYSMA A HT	SSV PD	к о
ERRa Homo sapiens	LA.A.SDSVH	TEDA	EA.EO.RE	ALHEA .LE.E	AG. AGPGGGA	ERRAGELL
ERRb Homo sapiens	LA.A.SDSMY	TEDI	EA.OK.OD	LTHEA. D.E	LSORH	E.WRTG.LL.
ERRg Homo sapiens	.A.A.SDSMH	IEDV.	EA.OK.OD	VLHEA.D.E	AGO.M	D.RRAG.MLM
ERR Drosophila melanogaster	LL.A.CD-IL	.DDQ	SSLR.FRD	TILNNDVV	YLLRHSS	AVSHQQQLL.
ERR Crassostrea gigas	MT.C.ID-VA	IENS	EA.RQ.QD	KLQDIE.V	.Y.YVG	.LRRLGHLYM
NR3D_Crassostrea_gigas	MV.VVRR	.ASY	NQIFNMQQ	SLLDAIVDTA	QKYHPD	.VRHVPAVL.
NR3D_Aplysia_californica	TV.VVRP	.DSF	L.IQEMRQ	LILDVFMEVA	GRH-QGFG	.WRHAPS.L.
NR3D_Platynereis_dumerilii	VTMLSIR	CL	DAM.KIRQ	.YLEA.HFEC	GRTLGKISES	SCVRM.Q.LC
ER_Branchiostoma_floridae	.T.VHGSLKG	.ESD	TQ.RQ.QD	DLTDA.MDVC	SEAL	GSRRPML.
ERa_Homo_sapiens	L.SGVYT	FLSSTIKSLE	EKDHI.RVLD	KITDT.IHLM	AKA-GLTIQQ	QHQRL.QLL.
ERb_Homo_sapiens	M. L.SSMYP	.VTATQDA.D	SSR.LAH.L.	AVTDA.VWVI	AKE-GISSQQ	QSMRL.NLLM
SR_Branchiostoma_floridae	LT.YTTAVSR	·QDY.	RQ.QR.QH	EINEA.AEAC	SSIFGF	S.GNI.RLMM
GR_HOMO_sapiens			SQELFDEIRM	TYIKE GKAL	VKLE.GNSSQ	WOR.YOLTK
MR_HOMO_Sapiens			SQ.AFEEMRT	NIIKE . RAMV	ACKD KNDDC	CCDD VOLTK
PR Homo sapiens			SOTOFFFMDS	SALE OKIT	GLI O KCUVS	SCOP VOLTE
rk_nome_sapiens			50101 BERINS	JIKE.IKAI	GTI-0-10-10-	PPOK. IÕTIK
12	51 H1(J-H11		H12		
NR3E Hydra magnipapillata	ILPQLKYLVN	EVLKVLHALN	SM-SEKGAYL	SDLVVEMLDV	KNRQ	
NR3F_Trichoplax_adhaerens			+			
NR3E_Hydractinia_symbiolongicarpus	M	Q.IE <mark>Y</mark> .YTMK	MN.NSSESN.	IEA	.Q.L	
NR3E_Aurelia_aurita	v	N.IE <mark>Y</mark> FYRVK	LSSE.Q.	.E.LEA	.S.L	• • • • • • • • • • •
NR3E_Rhopilema_esculentum	CV	N.IEYFYRVK	LSGE.Q.	.E.LEA	.S.L	• • • • • • • • • • •
NR3E_Podocoryna_carnea	[M	Q.IEY.YKMK	MH.ES.ESN.	IEA	.Q.L	• • • • • • • • • • •
NR3E_Nanomia_bijuga		R.IEL.TKMK	MN.HQDKCA.	I I I. EA	.Q.L	•••••
NR3E_Chironex_flecker1	V	H.IEF.IKVK	LSGE.Q.		.Б.L	•••••
NRSE_AIdlina_didla NRSE_Morbakka_virulenta	····· ··· ·· ·· ·· ·· ·· ·· ·· ·· ·· ··	H.IEF.IKVK	LSGE.Q.		.Б.Ц с т	•••••
NR3E_MOIDARRA_VIIuienca	V	H TEE VRVK	ISGE O		. Б. Ш С. Т.	••••
NR3E Copula sivickisi		H. TEF. YRVK	IS_{-GE}	EA	.S.T	
NR3E Chironex vamaguchi	v	H.IEF.YRVK	LSGE.O.	L.L.EA	.S.L	
ERRa Homo sapiens	TL.ROTAG	KAHFYGVK	LEGKVPM	HK.FLEA	MMD	
ERRb Homo sapiens	TL.RQTAA	KAVQ <mark>H</mark> FYSVK	LQGKVPM	HK.FLEA	.VG.EQLRGS	PKDERMSSHD
ERRg Homo sapiens	TL.RQTST	KAVQ <mark>H</mark> FYNIK	LEGKVPM	HK.FLEA	.v	
ERR_Drosophila_melanogaster	LS.RQADD	ILRR <mark>F</mark> WRGIA	RDEVITM	KK.FLEP	LA	
ERR_Crassostrea_gigas	LA.NHMKL	T.AKOVWEDVK	KDCRTMM	HK. FL EA	DS	
NR3D_Crassostrea_gigas			ID OKTIHI	h		
NR3D Aplysia californica	L.THIRQAGE	RGIAFFQR.K	.EGVVTF	CLKA	QDFLEKKSSN	EGD
mob_npiybiu_cullioinicu	L.THIRQAGE L.THIRQAGE	RGIAFFQR.K RGITYFQK.K	.EGVVTF MEGCVTF	CLKA CLTA	QDFLEKKSSN H.SSGERRRL	EGD QQQQQQPQQQ
NR3D_Platynereis_dumerilii	L.THIRQAGE L.THIRQAGE FARQVSL	RGIAFFQR.K RGITYFQK.K KAITH.FNMH	.EGVVTF MEGCVTF NQHAVPV	CLKA CLTA GAVA	QDFLEKKSSN H.SSGERRL QKELMTNEDS	EGD QQQQQQPQQQ AKIIT
NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae	L.THIRQAGE L.THIRQAGE FARQVSL L.SH.RQVSA	RGIAFFQR.K RGITYFQK.K KAITH.FNMH RASSH.G.VR	.EGVVTF MEGCVTF NQHAVPV NGLKVP.	CLKA CLTA GAVA Y.ILLDI.TD	QDFLEKKSSN H.SSGERRRL QKELMTNEDS QVSEGQRDQQ	EGD QQQQQQPQQQ AKIIT AGHHEVASSP
NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERa_Homo_sapiens	L.THIRQAGE L.THIRQAGE FARQVSL L.SH.RQVSA SHIRHMS.	RGIAFFQR.K RGITYFQK.K KAITH.FNMH RASSH.G.VR KGMEH.YSMK	.E GVVTF ME GCVTF NQ HAVPV NG LKVP. CK NVVP.	CLKA CLTA GAVA Y.ILLDI.TD Y.LLDI.TA	QDFLEKKSSN H.SSGERRRL QKELMTNEDS QVSEGQRDQQ HRLHAPTSRG	EGD QQQQQQPQQQ AKIIT AGHHEVASSP GASVEETDQS
NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERa_Homo_sapiens ERb_Homo_sapiens	L.THIRQAGE L.THIRQAGE FARQVSL L.SH.RQVSA SHIRHMS. L.SHVRHAS.	RGIAFFQR.K RGITYFQK.K KAITH.FNMH RASSH.G.VR KGMEH.YSMK KGMEH.LNMK	.EGVVTF MEGCVTF NQHAVPV NGLKVP. CKNVVP. CKNVVP.	CLKA CLTA GAVA Y.ILLDI.TD Y.LLA Y.LLNA	QDFLEKKSSN H.SSGERRL QKELMTNEDS QVSEGQRDQQ HRLHAPTSRG HVLRGCKSSI	EGD QQQQQQPQQQ AKIIT AGHHEVASSP GASVEETDQS TGSECSPAED DCSAECNUTM
NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERa_Homo_sapiens ERb_Homo_sapiens SR_Branchiostoma_floridae CP_Homo_sapiens	L.THIRQAGE L.THIRQAGE FARQVSL L.SH.RQVSA SHIRHMS. L.SHVRHAS. .VS.VRQ.SS	RGIAFFQR.K RGITYFQK.K KAITH.FNMH RASSH.G.VR KGMEH.YSMK KGMEH.LNMK LGVDH.NR.R NI. NYCEOTE	.EGVVTF MEGCVTF NQHAVPV NGLKVP. CKNVVP. CKNVVP GAETVSV	CLKA CLTA GAVA Y.ILLDI.TD YLLA Y.LLNA EG.LR.IV.E	QDFLEKKSSN H.SSGERRRL QKELMTNEDS QVSEGQRDQQ HRLHAPTSRG HVLRGCKSSI PP.ITEIEDS OIDE	EGD QQQQQQPQQQ AKIIT AGHHEVASSP GASVEETDQS TGSECSPAED PGSAEGNKTM VSMCNIFF
NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERa_Homo_sapiens ERb_Homo_sapiens SR_Branchiostoma_floridae GR_Homo_sapiens MR_Homo_sapiens	L.THIRQAGE L.THIRQAGE FARQVSL L.SH.RQVSA SHIRHMS. L.SHVRHAS. .VS.VRQ.SS L.DSMHEV.E L.DSMHEV.E	RGIAFFQR.K RGITYFQK.K KAITH.FNMH RASSH.G.VR KGMEH.YSMK KGMEH.LNMK LGVDH.NR.R NL.NYCFQTF DL.EFCFYTF	.EGVVTF MEGCVTF NQHAVPV NGLKVP. CKNVVP. CKNVVP GAETVSV LDK-TMSIEF BESHALKVEF	CLKA CLTA GAVA Y.ILLDI.TD YLLA Y.LLNA EG.LR.IV.E PEMLA.IITN PAMLITSD	QDFLEKKSSN H.SSGERRL QKELMTNEDS QVSEGQRDQQ HRLHAPTSRG HVLRGCKSSI PP.ITEIEDS QIPK	EGD QQQQQQPQQQ AKIIT AGHHEVASSP GASVEETDQS TGSECSPAED PGSAEGNKTM YSNGNIKK VESGNAKP
NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERa_Homo_sapiens ERb_Homo_sapiens SR_Branchiostoma_floridae GR_Homo_sapiens MR_Homo_sapiens AR_Homo_sapiens	L.THIRQAGE L.THIRQAGE FARQVSA .SHIRMS. L.SHVRHAS. .VS.VRQ.SS L.DSMHEV.E L.DSMHD.S L.DSVPJAR	RGIAFFQR.K RGITYFQK.K KAITH.FNMH RASSH.G.VR KGMEH.SNMK KGMEH.LNMK LGVDH.NR.R NL.NYCFQTF DL.EFCFYTF.L	EGVVTF MEGVVTF NQHAVPV CKNVVP CKNVVP CKNVVPV CKETVSV LDK-TMSIEF RESHALKVEF IKSHMVSVDF	CLKA CLTA GAVA Y.ILLDI.TD YLLA Y.LLNA EG.LR.IV.E PEMLA.IHTN PAML.IITSD PEMMA.INS	QDFLEKKSSN H.SSGERRRL QKELMTNEDS QVSEGQRDQQ HRLHAPTSRG HVLRGCKSSI PP.ITEIEDS QIPK QLPK	EGD QQQQQDPQQQ AKIIT GASVEETDQS TGSECSPAED PGSAEGNKTM VESGNAKP ILSGKVKP
NR3D_Platynereis_dumerilii ER_Branchiostoma_floridae ERa_Homo_sapiens ERb_Homo_sapiens SR_Branchiostoma_floridae GR_Homo_sapiens MR_Homo_sapiens AR_Homo_sapiens PR Homo_sapiens	L.THIRQAGE L.THIRQAGE FARQVSL L.SH.RQVSA SHIRHMS. L.SHVRHAS. .VS.VRQ.SS L.DSMHEV.E L.DSMHD.S L.DSVQPIAR L.DN.HDK	RGIAFQR.K RGITYFQK.K KAITH.FNMH RASSH.G.VR KGMEH.YSMK KGMEH.LNMK LGVDH.NR.R NL.NYCFQTF DL.EFCFYTF .LHQFTFD.L QLHLYCLNTF	EGVVTF MEGVVTF NQHAVPV CKNVVP CKNVVP CKNVVP CKETVSV LDK-TMSIEF KSHMVSVDF LQSRALSVEF	CLKA CLTA GAVA Y.ILLDI.TD Y.LLA Y.LLNA EG.LR.IV.E PEMLA.ILTN PAML.IIS PEMMA.IIS. PEMMS.VIAA	QDFLEKKSSN H.SSGERRRL QKELMTNEDS QVSEGQRDQQ HRLHAPTSRG HVLRGCKSSI PP.ITEIEDS QIPK QVPK QLPK	EGD QQQQQQPQQQ AKIIT GASVEETDQS TGSECSPAED PGSAEGNKTM YSNGNIKK VESGNAKP ILAGKVKP ILAGMVKP

Supplemental Figure 2. Full-length alignment of cnidarian NR3E with already known members of the NR3 family.

The DNA-binding domain (DBD) is highlighted with light grey. Within it, two interaction sites with DNA response elements (P-box and D-box) are boxed, and the nine conserved cystein residues are highlighted in orange. The twelve helices of the ligand binding domain (LBD) are boxed based on the human ER α sequence. As in Figure 5, residues involved in estrogen binding in ER are highlighted in green. Homologous residues that are shared by the cnidarian NR3E and the vertebrate oxosteroid receptors (SRs) are highlighted in pink. The cnidarian-specific N79-W80 anchor is highlighted in brown.

	DBD	LBD
NR3E Hydra magnipapillata		
NR3F Trichoplax adhaerens	66.7	28.8
NR3E Hydractinia symbiolongicarpus	85.1	51.2
NR3E Aurelia aurita	79.1	40.6
NR3E Rhopilema esculentum	79.1	41.7
NR3E Podocoryna carnea	85.1	52.1
NR3E Nanomia bijuga	83.6	49.3
NR3E Chironex fleckeri	79.1	42.2
NR3E Alatina alata		42.7
NR3E Morbakka virulenta	79.1	43.1
NR3E Tripedalia cystophora	79.1	42.2
NR3E Copula sivickisi	79.1	42.2
NR3E Chironex yamaguchi	79.1	42.2
ERRa Homo sapiens	68,2	24.4
ERRb Homo sapiens	66.7	26.8
ERRg Homo sapiens	66.7	26.3
ERR Drosophila melanogaster	65.2	21.2
ERR Crassostrea gigas	65.2	22.8
NR3D Crassostrea gigas	69.7	21.1
NR3D Aplysia californica	68,2	22.4
NR3D Platynereis dumerilii	69.7	19.7
ER Branchiostoma floridae	65.7	23.3
ERa Homo sapiens	71.2	22.8
ERb Homo sapiens	71.2	23.4
SR Branchiostoma floridae	53	18.2
GR Homo sapiens	56.1	19.4
MR Homo sapiens	57.6	17.5
AR Homo sapiens	51.5	16.6

Supplemental Table 1. Identity percentages of DBDs and LBDs when compared to NR3E from *Hydra*.



Supplemental Figure 3. Paraestrol A docking into the ligand binding pocket of estrogen related receptor γ homology-based model of *Hydra* NR3E. (a) Superposition of the NR3E structural model using ERR γ structure (in dark green) where the paraestrol A is represented in light green, the ERR γ structure used as template (PDB id: 3D24) is represented in red and for comparison the paraestrol A position found in the NR3E ER model in pink. (b) Detailed view of the ligand binding pocket of NR3E ERR γ -based model, highlighting interactions (in yellow dashed lines) between the paraestrol and residues Q42 and N79. Results of the first round of docking experiments are represented in grey, showing one hydrogen bond (in red dashed line) between paraestrol and residue Q42. (c) Detailed view of the binding pocket of NR3E ER α -based model, highlighting interactions (in yellow dashed lines) between the paraestrol and residue Q42. (c) Detailed view of the binding pocket of NR3E ER α -based model, highlighting interactions (in yellow dashed lines) between the paraestrol and residue Q42. (c) Detailed view of the binding pocket of NR3E ER α -based model, highlighting interactions (in yellow dashed lines) between the paraestrol and residues Q42 and N79. Results of the first round of docking experiments are represented in grey, showing one hydrogen bond (in red dashed line) between bond (in red dashed line) between paraestrol and residues Q42 and N79.