

Additional File 2

AquWntC 1 MKIFS-----RHYC-----
PfiWntC 1 MRISIAKIM-----TC-----
HdujWntC 1 MT-----
AquWntB 1 MLCRG-----
PfiWntB 1 M-----
EmuWntB 1 MRMCECT-----
SlaWntB 1 MRMSESI-----
EfrWntB 1 MRMSELV-----
AquWntA 1 MAFTS-----
EmuWntA 1 -----
SlaWntA 1 MDKRAVQ-----
EfrWntA 1 MDKKAVQ-----
CreWntA 1 MSLCT-----
PsuWntA 1 MA-----
CcaWntX1 1 M-----
HdujWntL 1 MLLSDMDRGRT-----
OloWntI 1 TRPA-----
OcaWntI 1 MRV-----
CcaWntI 1 MPYSV-----P-----
LcoWntA 1 MNM-----
SciWntA 1 MDSC-----
ScoWnt-i 1 MEVCLVTF-----
SciWntN 1 MTFVTECTV-----
ScoWnt-ii 1 MAYVSQAA-----
SciWntT 1 MASSL---HTSSHLQ-----GC-----
LcoWntE 1 MYSLSMLAW-----
SciWntE 1 MLLA-----
ScoWnt-iii 1 RVPL-----
LcoWntR 1 MSRSR---G-----
SciWntR 1 MEQAQHVC-----
LcoWntC 1 MAIR-----
SciWntC 1 M-----
ScoWnt-v 1 M-----
LcoWntI 1 MASSK-----FTC-----
SciWntI 1 MADG-----
ScoWnt-iv 1 MS-----
LcoWntJ 1 NTSGR-----
SciWntJ 1 MA-----
LcoWntG 1 MALLNM-----
SciWntG 1 MANVG-----
ScoWnt-vi 1 MATMP-----
OcaWnt2X 1 ISVHSCLCMISRQ---TRFLCF--VNP-A
EmuWntC 1 M-----
SlaWntC 1 -----
EfrWntC 1 MEGSASTAYSSLTAKI-----FSKLV-----
CreWntC 1 MKEGMSFSSSSLQRIA-----LKEK---E-QARFC-----
CcaWntX2 1 MLVTHQSSDEQTD-----
LcoWntD 1 MMAWTSLQRFT-----
SciWntD 1 M-----
ScoWntX1 1 MAQCPQGRR-----W-----
LcoWntF 1 MARNL-----
SciWntF 1 MH-----
LcoWntQ 1 FARFREANFLKPQAIG-----H-FVGCTKRSP-----S-FSSC-----
SciWntQ 1 -----
HdujWntD 1 MPTARDAD-----
HdujWntE 1 -----
HdujWntF 1 MKSFLTEVN-----
HdujWntH 1 MTSLF-----C-----
HdujWntI 1 MSRISPMSL-----
HdujWntG 1 MTATA-----
OloWntII 1 TRPNRRSSN-----
OcaWntIIa 1 MH-----
OcaWntIIb 1 SAPNSQQ-----
OcaWntIIc 1 MFIKR-----
OcaWnt5bX 1 M-----
OcaWnt6X 1 MGGAPAATI-----
LcoWntK 1 MIA-----
SciWntK 1 MSHSTMRSWYAVSEVRFLLL-----
LcoWntU 1 -----
SciWntU 1 MALSP-----
SciWntM 1 MRQQANRSS-----CRE-----
ScoWntX3 1 MS-----
LcoWntH 1 MALLMTVG-----
SciWntH 1 MGP-----
ScoWntX4 1 MSSRLFHNP-----
LcoWntB 1 MAA-----
SciWntB 1 MAFVSYRTI-----
SciWntO 1 -----
HdujWntK 1 MKRLLFSSF-----
HdujWntJ 1 MMSTEFISC-----CKRS-----
LcoWntP 1 MCCINNSATPRGE-----IMH-----AKSSC-----
SciWntP 1 M-----
ScoWntX2 1 MFKLR-----VM-----
LcoWntL 1 MSNVERILPCGPRESG-----DECCFASV-----KVSLARCSRSISPEE
SciWntL 1 MGQ-----
ScoWntX5 1 MTELA-----CTE-----
LcoWntS 1 MA-----
SciWntS 1 MCVCLDERLSSLNLTRPLQADPWPTAMAPASPPAPEQAVPPNVEPSLLATTC-----

AquWntC	10	-----
PfiWntC	12	-----LLTREYEG
HdujWntC	3	-----
AquWntB	6	-----L-----SLRMS---DV-----
PfiWntB	2	-----
EmuWntB	8	-----
SlaWntB	8	-----
EfrWntB	8	-----
AquWntA	6	-----
EmuWntA	1	-----
SlaWntA	8	-----
EfrWntA	8	-----
CreWntA	6	-----
PsuWntA	3	-----
CcaWntX1	2	-----
HdujWntL	12	-----
OloWntI	5	-----
OcaWntI	4	-----
CcaWntI	7	-----
LcoWntA	4	-----
SciWntA	5	-----
ScoWnt-i	9	-----
SciWntN	9	-----
ScoWnt-ii	9	-----
SciWntT	15	-----SALI
LcoWntE	10	-----
SciWntE	5	-----
ScoWnt-iii	5	-----
LcoWntR	7	-----
SciWntR	9	-----
LcoWntC	5	-----
SciWntC	2	-----
ScoWnt-v	2	-----
LcoWntI	9	-----
SciWntI	5	-----
ScoWnt-iv	3	-----
LcoWntJ	6	-----
SciWntJ	3	-----
LcoWntG	7	-----
SciWntG	6	-----
ScoWnt-vi	6	-----
OcaWnt2X	24	ISSVGIIIPHQTY-----ETSNDHGT-----NAKYI
EmuWntC	2	-----
SlaWntC	1	-----
EfrWntC	22	-----SAPVRSNSA
CreWntC	27	-----RSGAV
CcaWntX2	14	-----TNSHDIT-----KRSN-----
LcoWntD	12	-----
SciWntD	2	-----
ScoWntX1	11	-----
LcoWntF	6	-----
SciWntF	3	-----
LcoWntQ	33	---TNTIYGMMFALNIQQPKAEGNVHPQGKL---GPSPC-----VMSLLTTRF
SciWntQ	1	-----
HdujWntD	10	-----
HdujWntE	1	-----
HdujWntF	10	-----
HdujWntH	7	-----
HdujWntI	10	-----
HdujWntG	6	-----
OloWntII	10	-----S
OcaWntIIa	3	-----
OcaWntIIb	8	-----
OcaWntIIc	6	-----
OcaWnt5bX	2	-----
OcaWnt6X	10	---SLVPPL-----IAYKASARF
LcoWntK	4	-----
SciWntK	21	-----
LcoWntU	1	-----
SciWntU	6	-----
SciWntM	13	-----
ScoWntX3	3	-----
LcoWntH	10	-----R---VPKGGGA
SciWntH	4	-----
ScoWntX4	10	-----SRG-----GSSAL
LcoWntB	4	-----
SciWntB	10	-----
SciWntO	1	-----
HdujWntK	10	-----LLSAS
HdujWntJ	14	-----SRH---RIQVLPRR
LcoWntP	22	-----RPQKVLYS
SciWntP	2	-----
ScoWntX2	8	-----
LcoWntL	40	TQGTRAQPTSSLACRSTCSSSEANSSSP-----SQPAMSVRRG---AGWGHASH
SciWntL	4	-----
ScoWntX5	9	---RHIPLPSLAARPKGALNTSTSRTPRCMTRQPVAEVCAPPAASISRHKRCVFGMMQL
LcoWntS	3	-----
SciWntS	53	-----SSCRSARY

AquWntC 10 --NYVSVLIIIFYCI-----IIISLNKT-----
 PfiWntC 20 SLYFKHFKMYLVIL-----LMVIFQAQAFSP-----
 HdujWntC 3 -----FLVIVAMAL-----SIFALVVE-----
 AquWntB 14 ----GRALLLS-----
 PfiWntB 2 -----
 EmuWntB 8 ----DRLLYVSLMCI-----
 SlaWntB 8 ----GRLLIICLVCL-----
 EfrWntB 8 ----DRLLLVGLIYI-----
 AquWntA 6 -----IATAVC-----IIMVFNGC-----
 EmuWntA 1 -----
 SlaWntA 8 ----EHAVFIICLVV-----AVHLVISSS-----
 EfrWntA 8 ----EHAVFIICFLVM-----AVHLVISSSL-----
 CreWntA 6 -SQWRGYICCAFLLM-----ITVINVOGPN-----
 PsuWntA 3 ----LSRVIVFALV-----ITVAATKSVFG-----
 CcaWntX1 2 -----LFFASIVF-----TIFACVTSV-----
 HdujWntL 12 ----YSLVLIKAVF-----IALLQAPTFSFA-----
 OloWntI 5 -----IQNVVONEY-----
 OcaWntI 4 ----FRVVVAAACL-----MAVVFSEIY-----
 CcaWntI 7 -----
 LcoWntA 4 ----WQIISLALC-----LVLLAQRALS-----
 SciWntA 5 ----YRLLSIV-----MAAVLGLLES-----
 ScoWnt-i 9 ----VKMLSVLAVI-----LVLDLSFSTT-----
 SciWntN 9 ----FSAVFLLS-----VHRLSAQKHLAA-----
 ScoWnt-ii 9 ----GCALLISSIC-----LVCESQLNQEAS-----
 SciWntT 19 QAS-TRILVVCFDM-----IPLLQGTGVS-----
 LcoWntE 10 ----TLVTLIAGIQ-----SRQSLVFGQVVQRQFVE-----DH-----
 SciWntE 5 ----VAAFVIALIS-----DRYQVGCQTAHHYRQLAVEVRPSVEQWDIG-EG
 ScoWnt-iii 5 ----ALVLLISTIA-----TSRLLVCAGQD-----IQVQPS-EEWDL-----
 LcoWntR 7 ---GRKLAMLFIS-----LVMGLASADSSK-----L
 SciWntR 9 ----RSFLIITMVV-----VALMPELSSSADVPE-----T
 LcoWntC 5 ----RREAVIVGVV-----IATFASIESR-----
 SciWntC 2 ----DRLCVIYFAF-----ISWMSGTESR-----
 ScoWnt-v 2 ----ARLCFGLAA-----LISLTLTVECR-----
 LcoWntI 9 ----LLOGITAMVS-----LIWQLEVTNGH-----
 SciWntI 5 ----KALWTCAVIV-----SVHLIGTCFGH-----
 ScoWnt-iv 3 ---GKIAWIVLLVV-----AAHLICISTCH-----
 LcoWntJ 6 ----SCFSEVCSCFQS-----
 SciWntJ 3 ----IILALA-----IVAVQISTKVQL-----
 LcoWntG 7 ----MSCRCVMMMI-----LISCCGLS-----
 SciWntG 6 ----FT--WIAAIL-----VLACARRS-----
 ScoWnt-vi 6 ----LNTLWSSAIL-----LITYVEMS-----
 OcaWnt2X 49 VTVEKAMRAVSLG-----IVISISTLFSSE-----
 EmuWntC 2 -----LCFGLSVAQAP-----
 SlaWntC 1 -----
 EfrWntC 31 SQNARTYIIQVAIT-----I AFCIGISFAQGA-----
 CreWntC 32 SSGCYPRWVWFALII-----I CSCISSSLCDVT-----
 CcaWntX2 25 -----QFRPRIRTDNIKQAGGQ-----RHCK--DGSCVM
 LcoWntD 12 ----PAACIYVAIVV-----ILLVQVPGDVSAST-----
 SciWntD 2 ----LVVATIVA-----SCMVLHEGSTASDSG-----DS-----
 ScoWntX1 11 ----VVLLSVLALT-----I PCSFSQDL-----
 LcoWntF 6 ----TPSLIISLTAS-----LIFLVATARAAV-----N
 SciWntF 3 ----LPLPLIATFAI-----IILAVSTVIGGQALL-----DS--N
 LcoWntQ 75 SCPNFNYLVTLATF-----I IACLNATALGD-----
 SciWntQ 1 -----
 HdujWntD 10 -----TFLLMSR-----
 HdujWntE 1 ---MSAAMIIVLC-----AFFPVITA-----
 HdujWntF 10 ----CRHILMVCSY-----IFVCFTANSCSNM-----
 HdujWntH 7 ----VRATNIVLIIA-----FISSFVAERSALQ-----PHC-----
 HdujWntI 10 ----LPMVPLLIIA-----LVVLAGEPDRAVAA-----
 HdujWntG 6 -TTKTALLVITVLLL-----GNSLQQSEA-----
 OloWntII 11 PLYLDLKMKQTCIVL-----IIFCIAV-----
 OcaWntIIa 3 ----RLSIPSLFL-----CIVFASA-----
 OcaWntIIb 8 ----LMYRLISWIFS-----SIVCTSI-----
 OcaWntIIc 6 -----
 OcaWnt5bX 2 ----FSVFCICLVF-----GVTAFFLAAASP-----
 OcaWnt6X 25 IRASVSTLCVSRLLTQQHNTTMPQLFTCLVIAICLSCVRAAC-----
 LcoWntK 4 ----MPMPWCALFV-----SIIIRMHT-----
 SciWntK 21 ----ASSVALAALLQ-----LQIFFVATVTAAPP-----
 LcoWntU 1 -----
 SciWntU 6 -----TFVVANGTSDAYPT-----
 SciWntM 13 ----GGCVITVTIP-----LILASVCSRSVAV-----
 ScoWntX3 3 ----MLLV-----IVILLSTGLCRKT-----
 LcoWntH 19 VS--SKAPVTLII-----VLLCLST-----
 SciWntH 4 ----SMISLIIAPLL-----LILLTISA-----
 ScoWntX4 18 QVRRAPIGISVLL-----LIIILASA-----
 LcoWntB 4 ----RMLFLVAVYLM-----IQQAVKGRDQEY-----
 SciWntB 10 ----SSKFTIITIIY-----LIMAITTIQ-----
 SciWntO 1 -----
 HdujWntK 15 SRKALRLVCSLIVL-----FGLICETSSN-----
 HdujWntJ 25 GTMWPSLFTIVVLCN-----LQLVACLSNY-----
 LcoWntP 30 GRTSLLAVLVVLM-----VQAAIGTGEASVK-----
 SciWntP 2 ASFVRPLALITLII-----ICATVCTKR-STD-----
 ScoWntX2 8 ASVVRPLPLIITLV-----ISVCVATAELPPN-----
 LcoWntL 86 SMRQPVLPILFVFL-----ICISLGSCLRQII-----
 SciWntL 4 ----RLFLAASV-----VICDLS-----
 ScoWntX5 65 SLTSTLLVFLALV-----ISADLTA-----
 LcoWntS 3 GRTLLKCPAALA-----I IILLNAPYSEGG-----
 SciWntS 61 GSTSLRLLRYLLVP-----LIVLLVQQRHAA-----

AquWntC	29	-----GF-----G	ANSNT-----	
PfiWntC	46	-DSVVET-----	ETTNTTDP-----	
HdujWntC	20	-----	-----	
AquWntB	21	-----WA-----F	SFTMDE--VT-----	
PfiWntB	2	-----	-----	
EmuWntB	19	-----W-----	VFH-----	
SlaWntB	19	-----W-----	VFH-----	
EfrWntB	19	-----W-----	MFH-----	
AquWntA	20	-----LASWW-----S	GVYNDL-----	
EmuWntA	1	-----	-----	
SlaWntA	28	-----SSTSWW-----S	SVSSLS-----	
EfrWntA	29	-----SSPSWW-----S	SVSSLS-----	
CreWntA	31	-----STSWW-----S	VGITDCGK-RVT-----	
PsuWntA	24	-----GIGWW-----S	GVSECS-----	
CcaWntX1	19	-----YGSWW-----E	MARDVAD-----	
HdujWntL	34	-----TATYW-----A	NLATIA-----	
OloWntI	14	-----	EPFFLSL-----	
OcaWntI	23	-----	KPFFFISC-----	
CcaWntI	7	-----	-----	
LcoWntA	24	-----TTTGY-----S	FPYHTAA--AL-----	
SciWntA	22	-----GLSNA-----E	FPYHTSA--AL-----	
ScoWnt-i	29	-----MSEGT-----L	FPYHTSA--AL-----	
SciWntN	29	-----TTLDDPDL-----R	PHYHIAT--AM-----	
ScoWnt-ii	31	-----TSLNNSDL-----S	FPYHIAT--AL-----	
SciWntT	42	-----QSLFF-----S	PFHTAS--GLASRSQHASRILS	
LcoWntE	39	----VGTAPS-----	VTPTAGNV-----	
SciWntE	48	ESSTTGNATT-----	TDSTSS--S	PSAVGGHDPAE-----
ScoWnt-iii	38	----QGNAST-----	-----SA-----	
LcoWntR	32	-----TLPQ-----S	GLDGLSSW--S	VPFQTV--ALKSINNDH-----
SciWntR	36	TEETIGRISQ-----	TG--FLSQW--R	VPFQAKV--ALSEINDPP-----
LcoWntC	26	-----	LPSTVKS--I	GAL-----
SciWntC	23	-----	LPSAIDR--I	MGSL-----
ScoWnt-v	22	-----	LPSTINT--I	MGSLN-----
LcoWntI	30	-----	FP	SAIEM--VN-----
SciWntI	26	-----	FP	SAIEA--VT-----
ScoWnt-iv	25	-----	FP	SAIEL--VK-----
LcoWntJ	18	-----	R	GFHSM--AL-----Q
SciWntJ	21	-----TSGSS-----S	SFHSM--AI-----Q	
LcoWntG	25	-----	HQSVW--R	TGISISSK-----
SciWntG	22	-----	EQSVW--M	TGISISSK-----
ScoWnt-vi	24	-----	HQTVW--R	TGISISSK-----
OcaWnt2X	75	-----	A	QIKGSS-----
EmuWntC	13	-----	DGTSGGN-----	TFSSIPG-----
SlaWntC	1	-----	-----	-----
EfrWntC	58	-----	DTTGGTTTA--S	TPTSTAS-----
CreWntC	59	TSNSAGTTSAP-----	A	TTPIITT--PMT-----
CcaWntX2	53	NDQGSNGNGFDNDDE-----	DEEGSADSWLPLEM	SWSVKEV-RVPSN-----
LcoWntD	37	-----	NLESWW--T	MANKIQL-----
SciWntD	27	-----	PAQNGDLETWW--T	MANVIL-----
ScoWntX1	30	-----	RSLETWW--T	MANQVRL-----
LcoWntF	31	PEGTVLSSSEYEGLPPLRGV-PSRRQDWW-----	S	SRLIDV-----
SciWntF	32	SDDRALSTSQPPPALP--GIAAYRKLQWW--S	S	SRLIND-----
LcoWntQ	101	-----TSMGVEEDSC-----	DLYQATKWW--S	MARLINR-----
SciWntQ	1	-----	-----	-----
HdujWntD	17	-----	S	ALQGLV-----
HdujWntE	19	-----	QGFW--S	ALEELT-----
HdujWntF	33	-----CS--NDLHEV-----	L	SVNPKL--VS-----
HdujWntH	33	-----DSC--NEFGFV-----	K	SVDPDL--VD-----
HdujWntI	33	-----	GENTRYW--A	YHEDVQ-----
HdujWntG	30	-----	ALSTWW--T	MANIPNA-----
OloWntII	33	-----	QATWL--D	GQRLID-----
OcaWntIIa	19	-----	TGTWL--E	GQKLIE-----
OcaWntIIb	26	-----	SATWL--E	GQKLDE-----
OcaWntIIc	6	-----	-----	GQKLDE-----
OcaWnt5bX	24	-----	KPPAWW--Q	FGEYLDK-----
OcaWnt6X	67	-----	APPAWW--Q	FGEYMKD-----
LcoWntK	23	-----	-----	-----
SciWntK	47	-----	QWW--	MYG-----
LcoWntU	1	-----	-----	-----
SciWntU	20	-----	-----	-----
SciWntM	36	-----	ASIFWKQ--	IYE-----
ScoWntX3	20	-----	HAAAWQE--	AFR-----
LcoWntH	38	-----	CRTANAIWWEED--	-----
SciWntH	21	-----	CNTANGIWWDT--	A-----
ScoWntX4	39	-----	WCRTTNAIWWNP--	E-----
LcoWntB	29	-----	-----	PSRNI-----
SciWntB	29	-----	-----	APGRRRP-----
SciWntO	1	-----	-----	-----
HdujWntK	40	-----	-----	RTPRTSNP-----
HdujWntJ	51	-----	-----	SKQSVPA-----
LcoWntP	57	-----	PRNHKTF--D	WATLKD-----
SciWntP	28	-----	GRLGQEPF--D	SRTVQR-----
ScoWntX2	35	-----	GGIKAERF--D	ARTVQK-----
LcoWntL	113	-----	-----	-----
SciWntL	20	-----	-----	W-----
ScoWntX5	86	-----	-----	-----
LcoWntS	30	-----	KRYSYYWW--D	SLLRSEG-----
SciWntS	88	-----	KTYSFYWW--D	SLLRSEG-----

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AquWntC	39	---ATP-----	VYLN-NQFTCHN	T-----	NAN-QRIM	
PfiWntC	60	---SSR-----	SLS-APLFTCRDL	R-----	TRS-QRDL	
HdujWntC	20	-----	NG-AAIAKQDQY	-----	DLIYS-QRQF	
AquWntB	33	-----	PF-PNHIICLY	P-----	GLNDV-QRDL	
PfiWntB	2	-----	-----	-----	-----	
EmuWntB	23	---AAQ-----	TF-SPDLICLT	P-----	SLNAQ-QKAL	
SlaWntB	23	---IAQ-----	PF-SPDLICLT	P-----	SLNAQ-QKAL	
EfrWntB	23	---VAQ-----	PF-SPDFICLT	P-----	NLNAQ-QKAL	
AquWntA	33	-----	SERV-VDSTP	CESLT-----	NILNSS-QQTF	
EmuWntA	1	-----	-----	-----	-----	
SlaWntA	42	---NPS-----	AD-TSTVDCSNST	-----	YLSPF-AQAT	
EfrWntA	43	---TPS-----	AN-PNSIDCINNST	-----	FLSPF-AQEV	
CreWntA	48	-----	TAN-STCPNCAK	Q-----	QDQWESAE-QASK	
PsuWntA	37	-----	LGSK-APCETCAK	T-----	KNYNLTDR-QKEA	
CcaWntX1	32	-----	RD-MDRLHCDR	E-----	YDYGLTKE-QVDM	
HdujWntL	47	-----	ATE-GESGVCNR	-----	SALTQS-QYLQ	
OloWntI	22	---GSK-----	QL-KQRVDCVS	-----	PMTDA-QREW	
OcaWntI	31	---AVD-----	DL-KGKELCPR	-----	TLPDE-QFRL	
CcaWntI	7	-----	-----	-----	DVSLR-----	
LcoWntA	39	---STV-ET-----	GP-IRKSTCKR	P-----	GLTDK-QVKW	
SciWntA	37	---ATS-GL-----	RP-IRRGDCKR	T-----	GLIEG-QFQW	
ScoWnt-i	44	---STS-GL-----	AP-VRKSSCKR	E-----	GLTVA-QVKW	
SciWntN	47	---SSA-EL-----	EP-IRKGNCKR	E-----	GLSTS-QVDW	
ScoWnt-ii	49	---SAS-EA-----	EP-IRKGSCKR	F-----	GLTQR-QVEW	
SciWntT	69	LSMSSS-IK-----	KD-ITKETCRO	V-----	GLTSK-QFRW	
LcoWntE	53	---NAG-----	TPEES-DRRAACRF	P-----	GLTQK-QRLW	
SciWntE	77	---ETD-GI-----	EP-DGRAACSF	P-----	GLTER-QRLW	
ScoWnt-iii	46	---EHG-GG-----	EP-DSRAACHF	P-----	GLTER-QRLW	
LcoWntR	62	---SDDFDLSQ-----	LAAPVNE-TDRALLKT	V-----	GLTRRE-QFTW	
SciWntR	70	---GQDFSLHD-----	LVRTAND-TDDAQLNA	L-----	GLSRE-QQAW	
LcoWntC	39	---GSE-----	AI-TRNAFCNR	Q-----	GLSDA-ESKW	
SciWntC	36	---ETK-----	AI-TQTRFCDK	N-----	GLTQL-QKEW	
ScoWnt-v	36	---DSR-----	VI-SHQRFCKN	N-----	GLTAA-QATW	
LcoWntI	40	---KQR-YL-----	NAA-VEKRLCRN	P-----	GLTDR-QRSW	
SciWntI	36	---RQR-FL-----	DET-VQRRLCRN	P-----	GLTDR-QRSW	
ScoWnt-iv	35	---KQR-YL-----	DET-VQRRLCRN	P-----	GLSDQ-QRSW	
LcoWntJ	29	ASQSMH-VL-----	DC-LGPAQCQH	P-----	GLTES-QRLW	
SciWntJ	37	IVQSMR-AL-----	KT-LGPEQCEH	P-----	GLSDH-QKAW	
LcoWntG	39	---TLE-RL-----	QC-VVTKTCNS	P-----	GLTIR-QRAF	
SciWntG	36	---TLD-PL-----	EG-ALQKTCSS	A-----	GLTHR-QRMF	
ScoWnt-vi	38	---SLD-PL-----	QC-VIEKTCGS	V-----	GLTQR-QRMF	
OcaWnt2X	83	---SEE-GL-----	RQTKGGGI-RPAD	ICKFP-----	GLSRS-QVRF	
EmuWntC	28	---SPT-----	PVQ-INMLECLS	AF-----	DQQAQ-AVLV	
SlaWntC	1	-----	-----	-----	-----	
EfrWntC	75	---SAT-----	PVQ-INMMECS	SAF-----	DQQAQ-TVLV	
CreWntC	82	---STSTSL-----	PTPQR-FNIADC	VTSF-----	DSSDQ-RFYI	
CcaWntX2	96	---KTKSSLIG-DRN	TTVVHLVELDATK	QHYSRTVVKCRD	VTQLV-----	NSDL
LcoWntD	51	---PQG-----	KF-HVFPGCDK	N-----	LMTRN-QKLS	
SciWntD	47	---PQG-----	NM-GTFPGCEH	N-----	LMTDN-QBRA	
ScoWntX1	45	---PAG-----	TLGPVFPQCQ	LK-----	LLTEN-QRAA	
LcoWntF	69	---NTR-QL-----	ASA-SSVEQCNS	P-----	LSRR-QREL	
SciWntF	68	---RTG-RL-----	KSA-SSVRACQR	P-----	LSKR-QKQL	
LcoWntQ	128	---TSL-----	EL-KTFSSCDD	L-----	LTDL-QRGE	
SciWntQ	1	-----	-----	-----	MSAG-QASF	
HdujWntD	26	---QPN-----	GH-LAPANCS	EYL-----	IKGVQPH-QYEV	
HdujWntE	31	---AAD-----	GQ-FVRPNCVSY	H-----	SSGLTQE-QYQL	
HdujWntF	51	---RSG-SL-----	VE-RGFKNCFE	F-----	GVLTON-QLNM	
HdujWntH	52	---ANG-----	IVV-NKLADCME	YD-----	EVLSPQ-QMSV	
HdujWntI	47	-----	VP-LSHQRCSE	Q-----	LAGVLAPS-QHLL	
HdujWntG	44	---DL-----	SKPDGSS-LIPLD	CKAHQ-----	ASMSAA-QFQL	
OloWntII	46	---EEI-RLRGP	DFDPDIV-----	HIPEEDI-KPTLD	CYDWN-----	MTTG-QFQI
OcaWntIIa	32	---EEI-KNRPP	PGYDPTIV-----	HTKENDV-KVTLD	CSSVN-----	MTSA-QQKM
OcaWntIIb	39	---ERQ-KLIPP	PGDPTII-----	RSKENQI-KVALG	CSSVN-----	MTLP-QHQI
OcaWntIIc	14	---ERQ-KLIPP	PGDPTII-----	RSKENQI-KVALG	CSSVN-----	MTLP-QHQI
OcaWnt5bX	38	---QLG-KY-----	QV-LTTIPCSY	F-----	LSPR-QREM	
OcaWnt6X	81	---QAS-KY-----	GI-WTSIPCEK	F-----	LPQT-QHDI	
LcoWntK	23	---SSE-----	SVL-AVKDLCND	T-----	SSQEDGA-SFVI	
SciWntK	53	---SSQ-----	SVR-TLREQC	SEWN-----	SSSLPDDIA-SQLI	
LcoWntU	1	-----	-----	-----	-----	
SciWntU	20	-----	RFS-HFPFRCK	VRE-----	GAPLE-SHSQ	
SciWntM	46	---GSS-----	QA-WQNGRC	DPEL-----	EVSQ-QSQH	
ScoWntX3	31	---GAG-----	QA-WQNGKCD	ENL-----	DVSL-QSPQ	
LcoWntH	50	---AED-NL-----	FN-LHQHCAED	L-----	AANRTS-PLLI	
SciWntH	33	---ASD-SL-----	HK-QHAKHCPE	-----	SAKLNS-SLQL	
ScoWntX4	52	---AAD-SL-----	HR-LHYKHCPE	-----	GSKHNS-SLHL	
LcoWntB	35	-----	TNWELCATRE	-----	TAE-GSEL	
SciWntB	37	---HNN-----	VNM-TFMDIC	SKMD-----	TVT-AQVR	
SciWntO	1	-----	-----	-----	-----	
HdujWntK	48	-----	YKTCYQYR	-----	NYRPTSY-QLRY	
HdujWntJ	59	-----	SLGTNCSAWI	-----	QRYNLTAQ-QSHL	
LcoWntP	73	---ISG-----	-----	-----	RRFADQFPH-EVSV	
SciWntP	44	---AVR-----	-----	-----	RPYFRQRQY-EKSV	
ScoWntX2	51	---IAG-----	-----	-----	RRYFDTHEN-DRKI	
LcoWntL	113	-----	QPSVDCPRNM	SAEDMFQ	LIEG-QKRV	
SciWntL	21	-----	AVF-VTRSTCD	RDTQPIHDMVEA	LNSE-QRKI	
ScoWntX5	86	-----	ASL-IASRRCD	SVTRTIDDMVGA	LNER-QRRF	
LcoWntS	47	-----	-----	-----	VTGLDYTGI-QKVL	
SciWntS	105	-----	-----	-----	HHHADYUIGL-QKQL	

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* * *
AquWntC 63 CFT----TP---GLLK-ATVDAEQ-----LARKECNQLEYE--RWNCSGFA---
PfiWntC 83 CYD----TP---GLLE-ITIKSEQ-----LAKEECEFWFKDH--QWRCFGFS---
HdujWntC 41 CRV----NR---ELLP-ITKFAEA-----SAMRECQFLFKSN--RWNCSGFG---
AquWntB 54 CIR----YP---KLVPIITQEVPP-----LFYSECREQFKYE--RWNCSSETI---
PfiWntB 2 --E----YP---AAMA-ITQEIAD-----ATHDECIIDQFKND--RWNCTEVI---
EmuWntB 47 CRQ----LP---KAMN-VIVNATL-----AYTDECNWQFRKD--RWNCSVGG---
SlaWntB 47 CRQ----LP---KAMN-VIVNATL-----EYADECNWQFRRD--RWNCTSGG---
EfrWntB 47 CRQ----LP---KAMN-VIVNATL-----AYADECNWQFRRD--RWNCTSGG---
AquWntA 57 CNY----NR---KIVN-SLAIGTR-----RGTIVACQONFANW--RWNCTTFT---
EmuWntA 1 -----
SlaWntA 67 CAS----DK---KIVL-ATARGTK-----AAIVQCCQMEFANS--RWNCTTFL---
EfrWntA 68 CAK----DK---NIIIL-AVSRGAK-----AAIIQCQSEFGNL--RWNCTTFL---
CreWntA 73 CRS----EP---AIRD-SLISNGAR-----AAIIDCQCFRFNES--RWNCSSTLF---
PsuWntA 63 CIQ----DP---SQVQ-ATARGTR-----KAIIDCQAVFSESR--RWNCSSTFS---
CcaWntX1 56 CKSFR---YY---PLMS-DVFFFAE-----MALKQCKRFQKHN--RWNCSWTAS---
HdujWntL 68 CLS----NR---DTVY-STALGVE-----LGTIAQCRVVFVNN--RWNCSATG---
OloWntI 44 CRW----ND---DIVG-LITVDGAT-----KGLDECEYRFQKR--RWNCTSSE---
OcaWntI 53 CRW----ND---VIMA-KFVDCAR-----IGLRECEYQFRNR--RWNCTAAK---
CcaWntI 12 -----LFGIVS-----DFSTN-----
LcoWntA 65 CKS----HY---VFLQ-PIVSGTK-----LGLDECKRFRFGSR--RWNCSPTDL---
SciWntA 63 CKT----HS---VFMQ-PIVSGAK-----LGLAECQRFFSNR--RWNCSPTDQ---
SocWnt-i 70 CKS----HH---VFMQ-PIASGAK-----LGLAECRFRFSDR--RWNCSPTDR---
SciWntN 73 CKK----NS---VFFR-PIVIGTR-----LGLNECKRFRFARR--RWNCSPTDQ---
SocWnt-ii 75 CKK----HY---DFLQ-PIVIGTR-----LGLDECKRFRFALR--LWNSCPIDR---
SciWntT 98 CRK----NY---ELLA-ATGDGAR-----LGLAECQRFREFKR--RWNCSPIAQ---
LcoWntE 80 CLD----NY---IFLE-PIASGAQ-----IAGNQCRKQFSDR--RWNCSPTNR---
SciWntE 103 CRD----NY---VFLE-PIASGAQ-----IALAQCRKQFADR--RWNCSPTDN---
SocWnt-iii 72 CLD----NY---VFLE-PIATGAQ-----LALGQCRKQFADR--RWNCSPTHN---
LcoWntR 96 AQR----YN---KLLQ-PIVSEGAT-----LALRECHFRFKDE--RWNCSPIHK---
SciWntR 103 AKN----NT---LLVG-PIVADGAV-----LGLRECHFRFKYE--RWNCSPIHR---
LcoWntC 63 CRK----YT---PFLP-ATGMGAD-----LALKECKRFRFYD--RWNCLDD---
SciWntC 60 CHK----YT---PFVP-ATGMGAN-----LALKECKRAFQYE--RWNCTMDD---
SocWnt-v 60 CHK----YT---AFLP-ATGLGAN-----LAMKECKRAFQYE--RWNCSMDD---
LcoWntI 63 CRS----HL---PFVG-PIAQQAT-----LGLSECRQFQFYE--RWNCSPLNY---
SciWntI 67 CRT----HL---PFVG-PIAQQAR-----LGLRECRQFQFME--RWNCPIND---
SocWnt-iv 62 CRA----HL---PFVR-PIAQQAN-----LGLSECRQFQFME--RWNCPIND---
LcoWntJ 58 CRH----HH---VFMQ-PIARGTL-----LGLDECSRFQFQ--RWNCPVND---
SciWntJ 66 CRQ----HH---VFMQ-PIAQQTR-----LGLSECSRFQFHYQ--RWNCPMNN---
LcoWntG 65 CMN----HS---DLMD-PIDQGAQ-----LGREECSEFRMSGR--RWNCPKNN---
SciWntG 62 CLT----RS---ELMD-PIDQGAN-----LGRLECSFRMSKK--RWNCPSPDD---
SocWnt-vi 64 CLA----RS---QLMD-PIVQGAN-----LQOECHFRMSGR--RWNCPKNN---
OcaWnt2X 115 CRR----RP---WLMT-SLGNQFK-----AARNECRELFARADV--RWNCSSTSN---
EmuWntC 53 CNN----YP---DLYA-VIKFAEQ-----VGRDECOQAFQGS--RWNCSSTFS---
SlaWntC 1 -----
EfrWntC 100 CNN----YP---DLYP-VIKFAEQ-----VGRDECOQAFQGS--RWNCSSTFS---
CreWntC 112 CLN----HK---ELFP-LIKFAEQ-----VCKSTCEEDFEHE--RWNCSSTFSL---
CcaWntX2 140 CER----YP---TVLP-ATIQGVQ-----LAVEETIILLKDR--RWDGYALK---
LcoWntD 75 CDN----GSAQGVNRMT-VLGRAAL-----ATKIECQKQFASK--RWNCSSTFE---
SciWntD 71 CDG----GSDLGVRMT-ILARASL-----ATTLECKQFQAAQ--RWNCPKFA---
SocWntX1 70 CNQ----GSEIGIARMT-VLARASL-----ATTMECKQFQFQ--RWNCEFTL---
LcoWntF 95 CNSTRVGEGS---ALMT-VAARASL-----AAVRECOQFQFADN--RWNCSQHF---
SciWntF 94 CTSRRSGYGP---ALVT-IAARASL-----AAVRECOQFQFQDR--LWNCHEHFE---
LcoWntQ 151 CRQ----DASQGYGRM-VMARASL-----ATARECSRFQFQDR--RWNCSSTFQ---
SciWntQ 9 CSD----DARLGFERTR-VMARASL-----ATTRECARQFADR--RWNCSPSFL---
HdujWntD 53 CMN----NS---YLVS-ATTKGLR-----RATASQSTFKNN--LWNCATAYK---
HdujWntE 58 CQE----DG---LVLA-AVSKGLR-----RAISDQSNFAHQ--RWNCSAFE---
HdujWntF 78 CTR----DP---DYLS-CFALGMR-----RAVQWCGRFVFNQS--RWNCSHAV---
HdujWntH 78 CLG----KGS---RYLS-CFALGMR-----KAVNWCGRFVFNQS--RWNCSHAV---
HdujWntI 71 CVN----RP---QVLR-AVVRGLQ-----RAVHYCQFTRFRS--PWCQPLDA---
HdujWntG 73 CSD----NP---HLVT-AVVLGK--RATHFCQQQFQKQ--CWDQASFV---
OloWntII 86 CEK----SEK---GLLV-ATAQGIN-----AAVYTCRDFENR--QWNCSTDP---
OcaWntIIa 72 CQS----AEK---GLIV-ATAQGIN-----AAVYSCRFNMANH--SWNCPVPG---
OcaWntIIb 79 CVN----AEK---GFPA-AVAKGIN-----AATYVCRFDMKDF--PWNCPPIG---
OcaWntIIc 54 CVN----AEK---GFPA-AVAKGIN-----AATYVCRFDMKDF--PWNCPPIG---
OcaWnt5bX 63 GENP----RNR---DLMI-KLGLAVN-----LAVQVSNETFANR--RWRSHYTG---
OcaWnt6X 106 CANP----PNR---ELII-RLAVAVN-----VAEQACTQTFAGR--RWRCHYTG---
LcoWntK 51 CPL----AN---DTVW-QISRSSY-----EAVENCQRLFRNH--RWNCSSTSS---
SciWntK 82 CPL----SE---RTVE-EIEKSAY-----QAVWQCRVAFQKH--RWNCPNTT---
LcoWntU 1 -----RLWT-TIQRGLD-----QCIEECQKVMKTG--TAMTQPVTR---
SciWntU 42 CLR----RDE---PLWT-TIQRGR--EGIAQCRKVMKDN--TNSCAVEQ---
SciWntM 69 CIL----SH---PLLKPVRESLR-----IGIDLCKLRFQK--RWNCSINP---
SocWntX3 54 CIL----SH---PLLRPVLQYSLQ-----EAVIQCLKLFHDQ--RWNCSVNA---
LcoWntH 77 CRL----SG---DEMT-SLIHGAR-----EGLRQCQFLNNE--RWNCTSSD---
SciWntH 58 CRL----SG---EELT-SLMKGAA-----GGTFDCQMLMASQ--RWNCSSSD---
SocWntX4 77 CKL----SG---GELS-SLMRGAA-----KGIYECQMQASTQ--RWNCSSSN---
LcoWntB 52 C-----FARNGVV-----KAMALCKNQFKNE--RWNCPSSS---
SciWntB 60 C-----FARRGAV-----LAVNTCQDAFQOE--RWNCPSSS---
SciWntO 1 -----MAVQECRTRFAQR--QWNCVVKP---
HdujWntK 67 CTN----DH---ALFENVASVGVKLPSSPTPLFEEECQYWMAVE--RWNCSGK---
HdujWntJ 81 CRT----NH---SLFESVATICISSDVEAPS--LFECECQYWMED--RWNCSGK---
LcoWntP 89 VRRYT--SSE---SWKA-VFRNASK-----FTIEQCRCAMGKS--RWNCTTSS---
SciWntP 60 LEHHM---TE---SWLE-ITKEASE-----WLSSHACQCFGRN--MWNCTTSS---
SocWntX2 67 LLHM---SE---QWLA-ITRESSE-----WVTGHCMQFAKS--RWNCTSTSS---
LcoWntL 139 LQD----SR---NSTL-LFSDGES-----CAIQACKKWTKGT--RWNCHMNE---
SciWntL 51 LAQ----HA---IN-ATTP-IMYRGEY-----CAVHVCQELMQGT--RWNACHLNH---
SocWntX5 116 LLV----NANLT-SCTP-ITSRGER-----CAVSLCQELMQGT--RWNCHYLED---
LcoWntS 60 IDA----GA---VNNT-LIDRERV-----LFLSNCLTRMTNR--RWNCSRNMPQ---
SciWntS 118 VDG----GA---VNRS-LIHTARE-----YFLKECVIRMHPM--QWNCSTRTQ---

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AquWntC      100 -----VITPSN---VTKYATAETAALHSLMSAALAHVVTTRDCRFNG--M---QC
PfiWntC      120 -----MLTPSN---VTKRASKESSEFLYAIISATLHTITGACKDEI--I----DC
HdujWntC     78 -----VLRSSY---TKEVATAETAFLALMSAVLAKNIAQACKEGS----TSLC
AquWntB      92 -----PPI-AGDLS-KDKRRLSKETAFTYALTSAIMVRVITKACSDGR----LQNC
PfiWntB      37 -----PPI-IGDPY-SDLKRSKTESAFVHALTSAAITVHVITKACSDGR----IINC
EmuWntB      84 -----IPV-FASK---LAFNRSREAAFTYALVSAITAHSITSACANSL--L--GSAC
SlaWntB      84 -----IPV-FASK---LAFNKSRETAFTYALTSAVTVHAIITTACSNNI--L--GAAC
EfrWntB      84 -----IPV-FASR---WAYNKSRETAFTYALTSAITAHSITTACANGL--L--GSAC
AquWntA      94 -----GENLFGA---FVKNNTRETAFTVINALLTAGAERQIALDCRDEK----LPNC
EmuWntA      1 -----RGRS-----LNC
SlaWntA     104 -----GQYLFCK---FHTLGTAEESAAYVYFMSAGAAHELAQACRTGA----VSNC
EfrWntA     105 -----GQHLFGK---FHTSTGTESAAVYVYFMSAGAAHELAGACRTGA----VVNC
CreWntA     110 -----GNHLFGSF---VATGKTRETGVNLNAYFAACAVSAIAEDCHNQ-----IASC
PcuWntA     100 -----GENLFCRF---VTSRTRETAFTVFAFLSAGAIQEVAEACHEQR----LLNC
CcaWntX1     95 -----TGPLFCGA---LKNGTREAAAFVQALFTAVLSAKVTTKCSNPR--FHEPLTC
HdujWntL    105 -----PHERSFAD---ATSRGTETAFTVQAILSAGMMSLVSRVCKEGR----LLRC
OloWntI      81 -----RDH-FRA---ATSRGTRESAFTYAVTSAAIWVSVSRCALRE--D--LTQC
OcaWntI      90 -----ADH-FEK---VMAKGSREAAFTYAVASAAITWVSISRECALSD----LPEC
CcaWntI      23 -----VVHVLKLI---VLLSATRETAFTVFAMTVAGIIVSVSRECALGD----LREC
LcoWntA     102 -----PDI-FAK---AITTANPEAAAFVHGIESAGITLAIARTCSRGD--A--LSHC
SciWntA     100 -----PEV-FAK---ALETANPEASVFSIQSAGITLAIARTCSRGD--A--LKFC
SciWnt-i     107 -----QSV-FRK---AITTANPEAAAFVHGIESAGITLAIARTCSRGD--A--LSHC
SciWntN     110 -----PNI-FSK---VINTATPEAAAFVHGIESAGITLAIARTCSRGD--A--LSHC
ScoWnt-ii    112 -----PNV-FRR---VLDTANPEAAAFVHGIESAGITLAIARTCSRGN--T--VKHC
SciWntT     135 -----PSI-FSK---ILEAASKETAFVHSIQSAGITLAIARTCSRGE--A--STLC
LcoWntE     117 -----PAV-FSK---LYDRASRETAFTVHAIQSAGVTLTVARTCSRGO--A--PGWC
SciWntE     140 -----PAV-FSK---LYDKGSQETAFTVHSIQSAGATLAIARTCSRGH--A--PRWC
ScoWnt-iii   109 -----PAV-FCK---LYDRGSRETAFTVHAIQSAGATLAIARTCSRGH--T--PRWC
LcoWntR     133 -----PAS-FVK---LFKIGGPEAAFLVYAMQAGMSLAVARTCSQGD--T--RGAC
SciWntR     140 -----SET-FQK---VFMIGGREAAFLYAIQAGISLAVARTCSKGG--T--GGSC
LcoWntC     100 -----ER-YRH---LASFESRETAFTVDSIVSAGVMMASRGTCSKGN--L--TKYC
SciWntC      97 -----SS-FQH---VSSFQSKETAFTVDAIVSAGVMMASRGTCSRGG--L--TKYC
ScoWnt-v     97 -----AS-FTH---VSSFESKETAFVDAIVSAGVMMASRMTCKGQ--L--VRYC
LcoWntI     104 -----STANFN---IMSTGSRREAAVSSIQAGITLAIARTCSSGNST--ADF
SciWntI     100 -----STNYHF---IMSTGSRREAAVSSIQAGITLAIARTCSAGN--V--TRFC
ScoWnt-iv    99 -----STANFQY---IMATASREAAVVASIQAGVTLAIARTCSGN--V--TRFC
LcoWntJ      95 -----SRA-IET---ALNLRATAETAFTQSIQSAGIMQAIARTCSRGN--I--TKWC
SciWntJ     103 -----SMA-IQN---ALRLDTAEAAFLQSIQSAGMMQAVARVCSRGN--V--TEWC
LcoWntG     102 -----TDV-LKA---ALVKGYKESAFVQAIQSSGVVQGIARICCSAGK--A--NKHC
SciWntG      99 -----SVL-LKA---ALVKGYRESAFVQAIQSSGVVQAVARVCSGK--A--EKHC
ScoWnt-vi    101 -----TVL-LKA---ALVKGYIESAFVQAIQSSGVVQALARVCSGK--V--SKHC
OcaWnt2X    154 -----GAFV-FSP---LFRSSSKEAAAFWAISAGVVCVAVRDCMKGR----LTNC
EmuWntC      90 -----ILKSSN---LVKKDIETAYIRALQVAVIAHTVAKACGTQT----LVSC
SlaWntC      1 -----YIRALQSAVIAHTVAKACRTGT----LVSC
EfrWntC     137 -----ILKPPS---LVRKDIVEYAYIRALQVAVIAHTVAKACRTRT----LASC
CreWntC     150 -----LKQPSITKGDYIYKESAYVYSLMAVIAHTVAMGCVVEE----IFNC
CcaWntX2    177 -----KKQ-VGEN---LIRQATKESAFTHAIISAGITHVVTTKSGSKHL----IEGC
LcoWntD     116 -----RGPLFCRH---LLYNSKESAFVHTLMAASVAHEVAKACSEGR--L--EGDC
SciWntD     112 -----SGPLFCRH---LLHNSREAAAFVHALMAASVAHESAKACSEGR--L--GRDC
ScoWntX1    111 -----EGPLFCRH---LLYNGTREAAAFVHALMAASVAHESAKACSEGR--L--LGDQ
LcoWntF     137 -----SGPLFCRA---LKHRTKEAAAFVHSLMAASFAHESTVACKKNT----LGDQ
SciWntF     136 -----QGPLFCRA---LQKGSREAAAFVHALMAASLAHEAVVACSRGN----LEDC
LcoWntQ     192 -----SDN--HKSPLFCQH---LIQSHTREAAFLHALMAASAAHEMAQACKACK----VQSC
SciWntQ      50 -----SAE--HANKPLFCGA---VTRLHTREAAFLHALMAASSTHETAQACSQK----LSSC
HdujWntD     90 -----GAYLLGRA---LTKESKESAYARTLISAAITVDIATACRENI----IPNC
HdujWntE     95 -----GAYILGRG---VETIDSRREGAYVRSLSIAAILFDVAVACREGL----LPQC
HdujWntF    115 -----RQLVFCNF---VHTMSVEREAIVSMVSGAVMHDITTCREKK----LVDC
HdujWntH    116 -----RQLVFCNI---VHTMNLREAAVLMMSIASVMMLTTCREAL----LQDC
HdujWntI    108 ---G--SNRGYLFQ---LQKSSIPESGYLRAAVASSIIEYLAADCRGF----IPNC
HdujWntG    110 -----ESFLLQE---VESTANKEREYVRVLLAASITYDVAEQCRKEH--I--PACP
OloWntII    123 -----FCN---AFTAGSRQAAYVRSVLGVAVTYSITIAAGSYGS--L--PLTC
OcaWntIIa   110 -----GSHLFGP---VYNSGTREAAVLRGILNVAVSIVMAGADGS--M--PWTC
OcaWntIIb   117 -----GPYLFGP---VYRAGTRETYLRALIGAAGTYAMVVACADGA--M--PWTC
OcaWntIIc   92 -----GPYLFGP---VYRAGTRETYLRALIGAAGTYAMVVACADGA--M--PWTC
OcaWnt5bX   102 -----GKDVFGP---LVNQDGKESALHAIISAMAAVITRECARGN--I--PLLQ
OcaWnt6X    145 -----GRDVFGP---LVRQGVKRESSAYALVSAMAMYITRECAMEA--I--PRLC
LcoWntK      88 -----LPY---MASRTRETAFTVQALLAATLITSLVRSRCDGS--T--DESC
SciWntK     119 -----LPF---LSRKATRESAYINALMAAALASGISHACHRGTT--A--AVPC
LcoWntU      34 -----NTSRVFGKA---VLKGTRESAFLHSLMATAAVMRSIARSQGGQL--L--GDRC
SciWntU      80 -----NSSKLFQDA---VLAGTTREGAFLHALMTASLIQSIARSQGGKGY--L--ADRC
SciWntM     107 -----STPFLFCGK---LSKGSHRESAFIHALIASVTHGVARACASAGR--L--GRLC
ScoWntX3     92 -----LDTTLFCRG---AVKGTHEPESAFIHALIASVTHGVATACSQK--L--GNLC
LcoWntH     114 -----WNV---FLSKIHKREAAVYHVAIVSASVASQIILDCKKGN--L--PSVP
SciWntH      95 -----WKV---FLGKTHKEAAAFVHAVISTAVSAQLVHDCNNGR--L--PSTT
ScoWntX4    114 -----WNI---FLGKHLKREAAVYHVAIVSASVASQIILVHDCNNGR--L--PSTT
LcoWntB      81 -----FVPLL---MSSATREGAYLKALTSVMVAYEIAWACTSGY--L--QDVC
SciWntB      89 -----LVPMLKD---TTNMPQAAFVKALTSAMVAYEIAQGCYYGY--T--KLNC
SciWntO      22 -----RSM-LRN---ALRQGSPEAGFVAASQAGVAYSLLACKREQ--FA--GGYC
HdujWntK    113 -----APLFLQMQ-PFVHHLTKETAFTQALLSALSFIKVARGTSET----FTSC
HdujWntJ    126 -----APLFPCHIQ-PFVSHLTKETAFTQALLSAMYFRLARG----FRSC
LcoWntP     129 -----WKR---FLSRAHPEAAVFRALLSSNLVFOARHCAIKQ----DALC
SciWntP      99 -----WKK---FLLRHPEAGYFRALASVVFHTARHCAMGK--I----TC
ScoWntX2    106 -----WKK---YLLRAHPEAGYFRALASLVFHTARHCAMGK--I----SC
LcoWntL     176 -----NRYPFQHSPPRRLAGTKEQAFVLSALEAAGSVVKLARKCSDGSH--L--GREC
SciWntL      90 -----SRYPFQVDNPPKLLKGTKERAILSALDSAGVLVKSRECNKGG--P--PLRAC
ScoWntX5    156 -----SRYPFQKNMPPKRLRGTREAILSALDSAGALVKLSRECSRGT--TDSFAC
LcoWntS     100 SSAD--GIPPPYFGR---FTDATRQAAFIHALSIAVLLQEMVRS----EAPC
SciWntS     158 WSSDVPALPPPYFCK---FLDLSRQAAFIHALSIAVLLQEMISK-----EVPK

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AquWntC 141 EC GKNTT-----
PfiWntC 161 ESQT TGT-----
HdujWntC 120 SCGR TAT-----
AquWntB 137 SCDT SRQ-----
PfiWntB 82 GCDT RFN-----
EmuWntB 128 GCDT SMS-----
SlaWntB 128 GCDT SMA-----
EfrWntB 128 GCDT SMG-----
AquWntA 137 TCQI NGD-----
EmuWntA 8 KCET VGX-----
SlaWntA 147 QCET VGD-----
EfrWntA 148 ICET IGD-----
CreWntA 154 QCSD AP-----
PsuWntA 144 PCLR GFL-----
CcaWntX1 142 GCDR SNAFRSY-----
HdujWntL 149 SCDQ TVR-----
OloWntI 124 GCGR EDD-----
OcaWntI 132 GCGR VRG-----
CcaWntI 67 GCDR SWI-----
LcoWntA 145 GCDK DWT-----
SciWntA 143 QC DQTLT-----
ScoWnt-i 150 GCDK TLT-----
SciWntN 153 ACNK SQQ-----
ScoWnt-ii 155 GCDK LSM-----
SciWntT 178 GCAT GSE-----
LcoWntE 160 GCDT TWT-----
SciWntE 183 GCDT TWT-----
ScoWnt-iii 152 GCDT TWT-----
LcoWntR 176 GCDQ LWR-----
SciWntR 183 GCDK IWK-----
LcoWntC 142 GCDK SVL-----
SciWntC 139 GCDK SVL-----
ScoWnt-v 139 GCDK SVL-----
LcoWntI 150 SCDT SVK-----
SciWntI 144 SCDT SVH-----
ScoWnt-iv 143 SCDT SVH-----
LcoWntJ 138 GCDD SPYRTG-----LVGNTNGATLL-----AIDPANP-----
SciWntJ 146 GCDD SPQYRAG-----QRGSSSGATSLS-----SANRPAQG-----
LcoWntG 145 GCDL TYR-----NYGEEQRNK FQHRSTR LHGRGE-----TPTDSSDGTLDLEYDVT
SciWntG 142 GCDS SFK-----QYGREQHEK FQQRSSRIRAEAESSSPGGSGEVNLDLDGDII-
ScoWnt-vi 144 GCDS TYR-----NYGKEQRDK FQQRSAKLR SAGESDK-----GDQVMDLDGDII-
OcaWnt2X 197 GCRK ISS-----
EmuWntC 132 GCSQ FNT-----
SlaWntC 27 GCSA FNT-----
EfrWntC 179 GCAT FNS-----
CreWntC 192 SCPE KEG-----
CcaWntX2 220 GCASN RI-----
LcoWntD 161 RCKT NHHEA HLLLGLI-----
SciWntD 157 NCVT NYHEEDQLRGLV-----
ScoWntX1 156 NCVT NYHEDTDLKAIV-----
LcoWntF 181 GCQR PDS-----PTPMLLEKSAEELQY-----ALKAPLL-----
SciWntF 180 GCVR PQL-----PAPTQKDIEQYELTQFGQSGAPVAPRA-----
LcoWntQ 241 TCGH FELVEIH-----MDGKKNVTSAPT-----TTALPATASA-----
SciWntQ 99 GCSMPDQAELSALYPNTSSSSSGPSIHDVITASSQRPSSAVT-----
HdujWntD 134 FCAH DFP-----
HdujWntE 139 FCHAD SP-----
HdujWntF 159 SCNF SLP-----
HdujWntH 160 SCHFP PD-----I-
HdujWntI 154 PCGS VHK-----
HdujWntG 155 SCSIH GG-----
OloWntII 163 GCLSR SK-----
OcaWntIIa 154 GCLAR TK-----
OcaWntIIb 161 GCLSR SK-----
OcaWntIIc 136 GCLSR SK-----
OcaWnt5bX 146 GCART RQ-----ELSKDQW-REIL-----
OcaWnt6X 189 HCAST PK-----SISQDEW-RKTV-----
LcoWntK 128 SCEAEHRRRIA-----MVEAGRDNST-----
SciWntK 159 SCLAVHEDRKA-----EADGERDNST-----
LcoWntU 80 PCGQ YEG-----
SciWntU 126 PCGQ DAG-----
SciWntM 153 TCAV GGL-----SVSRDDP-----
ScoWntX3 138 TCSAG VL-----
LcoWntH 154 ICGSG SL-----
SciWntH 135 ICGT NPS-----
ScoWntX4 154 ICGGS PS-----
LcoWntB 123 GCSQ GQG-----
SciWntB 131 YCPV VAG-----
SciWntO 66 GGNAT TL--SD-----
HdujWntK 159 KCMAG SS-----
HdujWntJ 167 DGER VEN-----
LcoWntP 168 YADNR T AQEMFA-----
SciWntP 137 YMGNT TNSKNPS-----
ScoWntX2 144 YLGNT TEGGHPS-----
LcoWntL 226 SCPG VFG-----
SciWntL 140 QCLG STT-----
ScoWntX5 207 SCIQ SAT-----
LcoWntS 144 GAHQ AS-----
SciWntS 204 GAHCS ILNRE-----

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AquWntC 148 -----ISSAGNQVY--GCSN---WEFCMEMSA--KFLDGGKEKHGVV-----
PfiWntC 168 -----ITVNETHSVT--SDLHD---VTYSAILAE--KFLDSIENGGKS-----
HdujWntC 127 -----LPTGAGQYFA--SCSEN---IGFQOEVS--RFLDEAEHDRG-----
AquWntB 144 -----GQTSFQGWG--GCSDD---VGFVMLTR--AFLDTRNNATNK-----
PfiWntB 89 -----GQETQQGWG--GCSDD---VEFCANFAH--MFLDVRETENIE-----
EmuWntB 135 -----ALTQLGMDWG--GCSHD---VNYGVQYAO--SFLDARETTNQT-----
SlaWntB 135 -----ALTQSGMDWG--GCSHD---VDYGVQYAO--SFLDARETTNQT-----
EfrWntB 135 -----TPSQSGMDWG--GCSHD---INYGVOYAO--MFLDAREATNQTA-----
AquWntA 144 -----NGVVNSTFLY--ECSFD---IAKADHIMS--KFLTPSNDDTA-----
EmuWntA 15 -----GVRNSGCPGKHHLN--DCSDN---TGYATDTMN--QFLRDNSTN-----
SlaWntA 154 -----VRTQDAQGNII--N-DCSDN---IQYASNTVL--QFLKDNSTN-----
EfrWntA 155 -----VRTQDAQGNII--N-DCSDN---IKFASDIVR--QLTRENSTN-----
CreWntA 161 -----RTVDDENNIIE--TCKAD---FNFSSEYFG--EFLAAQIS-----
PsuWntA 151 -----VNTTANGDTIIS--DCAAN---FEWANFFS--SFLTSVYEQ-----
CcaWntX1 153 -----VSSGKNPRWDFD--DWD-DCSDN---IKFQNEFAS--EFLRQPNKG-----
HdujWntL 156 -----SPPTDGSFLWS--GCSDN---YEYGYYSQ--RFSNSAYQLTDT-----
OloWntI 131 -----EAGDDMDWG--GCSDN---LDQGRESSA--RFLRDDVKSP-----
OcaWntI 139 -----EKEGETMEWG--GCSDN---LEYCIDYTT--RFLSNRERV-----
CcaWntI 74 -----KKTQYGDMDWG--GCSDN---IEYQVEFSR--NFLARTPK-----
LcoWntA 152 -----SKKPVGYSWG--SCSDN---FVKGELFAR--EFLSARKNE-----
SciWntA 150 -----KNKAKDMDWG--PCSDN---YHKQKYAK--EFLDAGKNE-----
ScoWnt-i 157 -----AKESPDMTWG--SCSDN---FHKGEEFAK--QFLDGSRND-----
SciWntN 160 -----AVGNMTWGW--SCSDN---FQSGDKFAG--EFLSGMVKA-----
ScoWnt-ii 162 -----EKKPGNMTWGW--SCSDN---FNKGSQYAA--EFLSDVYMANR-----
SciWntT 185 -----LGNPEGNMTWA--SCSDN---IADGIRFSR--EFLNGREDG-----
LcoWntE 167 -----KHEAVNMTWGW--SCSDN---FVKCYELGK--QFLDASETDV-----
SciWntE 190 -----RNEAVNMTWGW--SCSDN---YVKCYELSK--QFLDAGETDT-----
ScoWnt-iii 159 -----QTEAVNMTWGW--SCSDN---YVKCYELSK--QFLDAGETDA-----
LcoWntR 183 -----DGGKSGVQTNST--SWG-ACSDN---MHYAYKKT--QFLTSGVHPAR-----
SciWntR 190 -----QGGGSDIKPNAS--SWG-ACSDN---LHFAHTQTL--NLGAPNEENG-----
LcoWntC 149 -----DDDSNVGNMDWG--GCSDN---FEKGRQYSR--MFLDIGAKETLPASPPVTPM-----
SciWntC 146 -----DEETTEEEMEWG--GCSDN---FLKQOYSQ--QFLDLAAKDLPA-----PSE
ScoWnt-v 146 -----DDDTNAGEEMEWG--GCSDN---FQKQOYSQ--QFLDLAAKETPA-----TVE
LcoWntI 157 -----DSTIEHNIKGEF--SWG-GCSDN---FAKCYQFAK--EFLDVAHLSQ-----
SciWntI 151 -----DENIEHNIKGEF--DWG-GCSDN---FAKCYQYSK--EFLDVAHTEEQ-----
ScoWnt-iv 150 -----NEDVEHNIKGEF--DWG-GCSDN---FAKCYQYSK--EFLDVAHTADQG-----
LcoWntJ 167 -----RTDKTGGAEVWG--GCSDN---VNTGYSYGR--EFLGDERTFSSK-----
SciWntJ 177 -----EPTGAADATAGK--VWG-GCSDN---VDTGAYAGR--QFLGQGQVFSPT-----
LcoWntG 192 -----DPGEVLLQKEDAE--RWG-GCSDN---WEACMRVAA--EFLDSGAI--SDLR-----
SciWntG 190 -----NSVPLTEDDQSM--VWG-GCSDN---WEACMRVAA--EFLDTGAVLNRSK-----
ScoWnt-vi 189 -----KAVPLTGKQDSM--SWG-GCSDN---WEACMRVAA--EFLDAGTITNRT-----
OcaWnt2X 204 -----DDKGVTEWE--GCDD---VKVGSKFSR--DFVVASLRG-----
EmuWntC 139 -----NNMAQVSGNTYS--G-NCSDN---LDFGYRFAM--NETTSGVTS-----
SlaWntC 34 -----NTMAQVAGDSYS--G-NCSDN---MEFCYQFAL--NETTSGITS-----
EfrWntC 186 -----NNMPQGDGNTYS--G-DCSDN---FEFCYQFAL--NETTSGITS-----
CreWntC 199 -----GCPDP-----VTYGLHIAA--TFINMRYTSSG-----
CcaWntX2 227 -----PETHSDDNMDWG--SCSDN---VYFCANVSA--MFLNSQEHKR-----
LcoWntD 177 -----NATEDIALAEHRWK--QCSDN---MAHGLRTAK--KQSVSPAPGVW-----
SciWntD 173 -----DREQAARWATADY--RWK-NCSDN---IAYGLRMAK--KQSVSEPRPGVW-----
ScoWntX1 172 -----DSEQEGFYLRSEHRWK--NCSDN---ILYGLRMAK--KQSVSEPRDGIW-----
LcoWntF 210 -----TKQVLLQKFNRLB--WTGCFDN---TKYGSKAE--EFLVRSASFVK-----
SciWntF 214 -----GETHLDDKLNIS--VWSAKCFDN---ILYGMSKAD--EFLVQKSSRYVK-----
LcoWntQ 274 -----AIHPSARTSMKVKQLRA--GCSDN---IEYQVENTV--DFQLRSEHAQAQVSG-----
SciWntQ 141 -----SAMVTERSLAKHKRVRP--RCSDN---IEYQVRASR--EFLHRTIEVEQSD-----
HdujWntD 141 -----FVTTEGDIVKEG--GCSDN---YGYAIEVNI--AFTGGEEBAHKN-----
HdujWntE 146 -----YIRKLSDGTILLN--GCSDN---PDYAKRTAD--VFLDSPGPLPLQ-----
HdujWntF 166 -----GIIQSFVEGKLVAV--G-GCSDN---LATPKARTM--TFLKMDPRSTSS-----
HdujWntH 168 -----LRFERIVVNGNATYIYA--GCSDR---LDIPAERTK--QLLDVNSNVED-----
HdujWntI 161 -----FIELLPNGTRIIG--GCSDN---IHHAATVAE--PFLGALGA-----
HdujWntG 162 -----LPFVEPISSGVKLR--TCSVN---LQWAQVAR--LFLMGQDSAD-----
OloWntII 170 -----LPPFNRTYEMWG--ECSHD---VSRATLAS--NFLIAGEEGEDE-----
OcaWntIIa 161 -----LPQFDNATYEMWG--ECSHD---VNLGNLGS--AFTSAGEVKEEQ-----
OcaWntIIb 168 -----LPPFDNYTHEWG--ECSHD---VRRGIDLAC--SFLRAGEVETEQ-----
OcaWntIIc 143 -----LPPFDNYTHEWG--ECSHD---VRRGIDLAC--SFLRAGEVETEQ-----
OcaWnt5bX 164 -----PNDFQRHNDPDES--SWG-GCTED---VDFGYKTKK--EFLDSSYDAWLSTVPPP-----
OcaWnt6X 207 -----PAILSRDENSASF--SWG-GCTEN---LDFGYKVS--RFLDLSHKDC-----
LcoWntK 149 -----LLESMWENNELEDMLKT--ECSDN---IKYATRF--DFTNQAEDA-----
SciWntK 180 -----VAAMQDDARVQRMLNG--KCNND---IAHARKFSQ--DFLDRQVDT-----
LcoWntU 87 -----STIPGNRDHWG--NCSVN---LVYQKMVR--KISNPNARRQN-----
SciWntU 133 -----ASFHNGQAQNMWEG--NCSVN---MVYGRNLVR--RLANPPNARRQN-----
SciWntM 167 -----SGTQGRSSAAFDMAS--RCGDD---TDYGVRIAK--ALASKPRES-----
ScoWntX3 145 -----NRKNNTFPVDMQWS--QCSDN---TAYGIRIAK--ALASRSRTA-----
LcoWntH 161 -----CNSQ-GCAVEV---ISYGYNTARILDWLSHSPAQLPHM-----
SciWntH 142 -----CQGS-SCTKEI---ITYGYNTARILDWLSNSPDQLQSM-----
ScoWntX4 161 -----CQGS-SCTKEI---ISYGYNTARILDWLSHSPQLQDSM-----
LcoWntB 130 -----TYVNFSGRVCRNI---ETTHRVTK--RLDDNTDAIILQ-----P
SciWntB 138 -----KSEKGVNNAF-ECAQV---MGSQVSGAK--LYLDDTHIAELLQPF-----
SciWntO 75 -----RARGAAGSAAARWG--Q-----LQHTLQTLRVYMLDDEAENDLA-----
HdujWntK 166 -----LGHILNRNEKMD-LCMDN---TVAANQATQ--RFLDEMWDTRF-----
HdujWntJ 174 -----TAENLRNV-HCQEA---QSSSV-----DLGDMWSTN-----
LcoWntP 180 -----GLVRRPVFSDVEKGES--FCVYH---FKRGLQVAVLDIWDKLSDFSIN-----
SciWntP 149 -----HLEYKLFSDFAKQT--FCDYH---FTEGLRAAKILDVLDGFFFHAMS-----
ScoWntX2 156 -----QIEYTMFFNDFAKKQS--FCDYH---FTEGLRAAKILDVLDKYYFAMMN-----
LcoWntL 233 -----RQERFMS-MCDRSRPGPQTIYGVAA--SFLADAHEEICH-----
SciWntL 147 -----SAGTTQEEFVRHTV--ECSRN---EDASSGPMIAIAK--NFLVDANEHEICK-----
ScoWntX5 214 -----NRQDSFAQAAE-LCAYS-EKTMFGPMFIAK--NFLVDHNEEICH-----
LcoWntS 150 -----RCMPDN---FECCALVS--RFLVGGELKGRKI-----
SciWntS 214 -----PCEMT-RCITON---FKCQDLVE--IFVLSAGDRKGRKM-----

AquWntC 184 -----IGDRQ---LNLQNNQVGRVWFL-----DVN--HKKE
 PfiWntC 204 -----LSDRQ---HLNLHNNRNLGRMVVQ-----N----SVK
 HdujWntC 163 -----LGLRQ---LSRLQDLAVGRAVIA-----QLA--AAMG
 AquWntB 181 -----TGNELEAS---LVNLHNNNAVGRVVS-----D----NMQ
 PfiWntB 126 -----EKSHGDLGLS---LVNLHNNNAAGRKEVQ-----D----EMD
 EmuWntB 172 -----DIGTAPVEVNLHNNNAVGRQTVQ-----D----YMQ
 SlaWntB 172 -----DIGTA---LVNLHNNNAVGRQTVQ-----N----YMQ
 EfrWntB 172 -----GIGTA---LVNLHNNNAVGRQTVQ-----D----YMQ
 AquWntA 181 -----IIEAEHNNVGSNLVVG-----QRY
 EmuWntA 52 -----TSDLD---LVNTHNYQVGLKMTS-----QRN
 SlaWntA 190 -----ISDVD---VVNYHNYQVGLQVLS-----QRN
 EfrWntA 191 -----ITDVD---LVNHNHNYEVGLRLIA-----NRN
 CreWntA 195 -----DSFEG---RLDQHNIIDLKKEATN-----HET
 PsuWntA 187 -----DLVGV---KSDLHNVNAGILSVK-----KIR
 CcaWntX1 192 -----QLARE---LNMKNHNEQAGLEVIS-----S----AAN
 HdujWntL 194 -----GGEGGQEISDYE---LMAQHNAEVGRLVVK-----S----NLQ
 OloWntI 164 -----SPERR---LMDDHNIKAGIEHAV-----R----ETK
 OcaWntI 173 -----DKARA---LMDHNIAGTQIAL-----N----TVK
 CcaWntI 110 -----DLARE---NMDKHNVIAAGKLTQ-----D----SAV
 LcoWntA 185 -----SSPQS---VVTDHNYQTGREVVR-----Q----SMQ
 SciWntA 183 -----SSPIS---MVASFNHETGQTVVR-----Q----SMQ
 ScoWnt-i 190 -----SSPVS---LVENYNHQTGRLVVG-----Q----SLQ
 SciWntN 192 -----NDSTS---TLAGLNHRFGRKVVG-----K----SMQ
 ScoWnt-ii 197 -----SSPLS---AVTRHNYDIGRKTIVG-----K----SMQ
 SciWntT 219 -----RSPSS---LMSLHDTEAGRKLTVR-----S----SML
 LcoWntE 201 -----SSPQS---KMTLWNYEAGRLLAVR-----R----LMR
 SciWntE 224 -----STPKS---KSTLWNNNEAGRLLAVR-----R----LMR
 ScoWnt-iii 193 -----TTPKA---LTLWNNNEAGRLLAVR-----R----LMR
 LcoWntR 224 -----KTERE---LMAVHDYKLGLEIAK-----E----KMQ
 SciWntR 232 -----RAHQO---MMEERHNYRMGLEIAK-----D----RMQ
 LcoWntC 197 STASARRPPADTSPRSRLSE---LTHKWNRSRQGRLLTVA-----D----TLV
 SciWntC 187 TTTET---VAGTPQSSVVE---EYHKWNNRRGRLLAVA-----D----NLA
 ScoWnt-v 187 PTATA---AAPSTREPQLSE---EYHKWNNRRGRMAVK-----N----SLA
 LcoWntI 197 -----VNQTRRD---LLELHNNNEAGRIVVR-----S----TLQ
 SciWntI 192 -----GNQTALD---VVELHNNNEAGRIVVE-----S----TLQ
 ScoWnt-iv 191 -----LNQTKFD---VLELHNNNEAGRIVVR-----S----TLQ
 LcoWntJ 205 -----SSLPSGEISSQ---LMAQONHEAGRQAVK-----S----TVR
 SciWntJ 219 -----TSQPN-EVASQ---LMAQONHEAGRQAVR-----A----SIR
 LcoWntG 235 -KEKL---GGMYGKSLLVN---RVALHNNKAGRLLAVR-----R----LLD
 SciWntG 232 -VDKH---GGMFGKSPVLN---RVALHNNKAGRLLAVK-----R----LLD
 ScoWnt-vi 230 -TDY---GGMFGKSPVVN---RVALHNNKAGRLLAVK-----R----LLD
 OcaWnt2X 236 -----ESLRN---LITEHNSNVGRRTVK-----R----LMN
 EmuWntC 175 -----TTVQA---KTDLHNFKAGINAVK-----DVM--AATP
 SlaWntC 70 -----ANVQA---KTDLHNFNAGINAMR-----DVM--AATP
 EfrWntC 222 -----TTVQA---KTDLHNFNAGINAVR-----DIMVPTVTP
 CreWntC 224 -----GGLKQ---EIVTRNFRATEITIQ-----SVM--SSTF
 CcaWntX2 263 -----RDLRT---QVNLHNNKAGRLLTVI-----S----ERR
 LcoWntD 217 -----DRKRQ---LINAHNEKLGROITK-----M-G--FDER
 SciWntD 216 -----SRQRK---LNLHNEKLGRTIVR-----K-G--FERA
 ScoWntX1 215 -----SEERK---LMDHNEKLGRLITK-----A-G--FHRA
 LcoWntF 252 -----RRARQ---LMLHNNHRAAGLKAVE-----KTR
 SciWntF 257 -----RRARQ---LMLHNNHQAGILITK-----ETK
 LcoWntQ 321 EISSD---SPTCASHKRRS---LMDAHNEEAGRQITL-----R----HMK
 SciWntQ 184 ---SS---SPRCTARFSRT---LMDRHNEEAGRQITK-----R----NTK
 HdujWntD 179 -----VELSA---FVNSHNNELGRKVVV-----E----ESY
 HdujWntE 185 -----DGLAV---KTLDHNNRLVSEQVID-----SPH
 HdujWntF 209 -----SSEKENCT---SADVHNAHVGVQMAS-----QTK
 HdujWntH 210 -----EPCD---LADRHNVEAGIKMAS-----VTT
 HdujWntI 197 -----MATRE---AVDHHNTELKLGKLS-----STE
 HdujWntG 199 -----GTARHNDYGIWVN-----K----SLS
 OloWntII 208 -----ETSADRLNS---LANVHNYEAGTKIAT-----T----AVK
 OcaWntIIa 199 -----TKLNY---LSNLHNNRDVQKVAR-----E----GAK
 OcaWntIIb 206 -----TRLNY---LSNLHNNHDVGTKVAR-----D----GVR
 OcaWntIIc 181 -----TRLNY---LSNLHNNHDVGTKVRKSRGSLFGRTPWIQS-----ATA
 OcaWnt5bX 211 EMPFSWPKAIEPAPAYTPSQ---LTDLHNEEAGRLLVVT-----K----SRK
 OcaWnt6X 247 -----SICNR---SVHLRNEEVGRAIVK-----E----GLK
 LcoWntK 188 -----SRKSG---AFALYNYNVGREVFN-----S----LVE
 SciWntK 219 -----SKKNG---VFALYNYKVGREVFN-----S----RVK
 LcoWntU 125 -----QLSPRS---LLOVLNNAAGELALE-----S----VQR
 SciWntU 173 -----QLRPRP---LLOVLNNAAGELALE-----S----VQR
 SciWntM 206 -----SSRRK---RLHHHNYVAGYQVPV-----E----MEQ
 ScoWntX3 182 -----TSRKR---KVLHNNYAAGYHVT-----G----QEY
 LcoWntH 194 -----KRRQA---LVHNNRDVGRFIVK-----K----HIK
 SciWntH 175 -----KWRQA---LHNNHNRDVGRLVVK-----K----QMK
 ScoWntX4 194 -----KWRQA---LVHNNNRDAGRFLVVK-----K----QIR
 LcoWntB 166 WIANQ---PSFRAKYRKHR---GVKLHNNNRVGRKLFV-----R----EAV
 SciWntB 177 -NKIY---PSGGAIHSTQE---QVRFHNNNRKGRVFK-----R----MAR
 SciWntO 113 -----KARRLNSDIQLQVVL-----N----MMS
 HdujWntK 203 -----PDEER---LVQHNNLEAGRRAVMA-----PE----NYR
 HdujWntJ 204 -----DDEQR---LVFHNNLEAGRRAVTA-----PE----NVM
 LcoWntP 224 -----RRRKHTKKFDL---VAHYHNNNAVGRQITN-----SL----RPK
 SciWntP 193 -----KSKRWRWSRSRDL---HTNYNNNAVGREITK-----DI----RPH
 ScoWntX2 200 -----KRRWSKRRDL---LTHYHNNNAVGREITK-----DI----RPH
 LcoWntL 271 -----GSKRVGADPRLC---KVNHNNNVGRITLI-----K----NFV
 SciWntL 190 -----GSARAGRDETQC---MTNLHNNLVGRRLVV-----R----HMR
 ScoWntX5 254 -----GTQTHGPDITYC---MTNLHNNMVGRKVVV-----R----SVD
 LcoWntS 178 -----SDETHRNR---MVNEHNRVAGMAAFR-----TW----GLK
 SciWntS 247 -----TNETYTNRV---MTHQHNRMAGIKAML-----SR----GLK

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 AquWntC 211 PTCRCVGLSASCSAKTCQRGHE---AFSVAASIK-DKYYKKSCKVSW-----K-
 PfiWntC 228 YGCRCEGLSASCSIQTCQTLA---NIRTVSAKIY-QAYDNSCKVRT-----N-
 HdujWntC 190 PQCRCEGLSACSIRTCRTMTP---PLGAGQQLL-SRYGQACRVTL-----E-
 AquWntB 208 VKCRCHGASGSCATRTCYSOIIP---TVRDISTDML-IKYNHDSVKVTA-----H-
 PfiWntB 155 VECTCHGISGSCSVRTCWRKLP---ELRSVSKNIK-QKYDQSIKVSU-----Q-
 EmuWntB 199 TSCSCHGISGSCVQTCWRQLP---EVGAGDVLIR-QKYEAAMVRV-----D-
 SlaWntB 196 TSCSCHGISGSCVQTCWRQLP---EVGVCDVLIR-QKYNAAMVRV-----G-
 EfrWntB 196 TSCSCHGISGSCVQTCWRQLP---EVGAGDVALR-QKYDTAVMVKV-----D-
 AquWntA 199 RKCRCTGFGSGLVQTCYFASP---DIDTIGQRVR-EKYGSSVEVTV-----N-
 EmuWntA 75 TTCLCHGVSGTCTVQTCYQOVP---DVATIGGTLR-QKYTNAMKVT-----V-
 SlaWntA 213 STCLCHGVSGTCTVQTCYQOVP---DVSSFDTLR-WKYTNAMKVT-----V-
 EfrWntA 214 ASCVCHGVSGTCTVQTCYQOVP---DVATIGDILR-WKYTNAMKVT-----V-
 CreWntA 218 TNCRCHGISGCTVQTCYKRVLP---TVPEIGEQLF-IRYGGAIHVVD-----S-
 PsuWntA 210 KSCNCHGISGCTVQTCYDQVI---SVSEMRDSL-LSYNGATKVE-----V-
 CcaWntX1 216 LSCFCHGFGSGLRTCWLEAP---SMNRIGSELK-KAYNKAVKVK-----V-
 HdujWntL 225 VQCRCEGLSACSIRIACHAAP---NFDLVGQKLY-GSYGNAMKVV-----S-
 OloWntI 188 RNCRCHGLGCAAIKSCWKEIPR---NFHQLGAVVE-NKFDGSAVKK-----N-
 OcaWntI 197 KNCRCHGLGCGCSFFTCWKEIPG---KFHNVGEKVK-SKFNAGSILKF-----N-
 CcaWntI 134 MECQCHGFGSGLTVKSCWKOLP---SMKIGLLVK-REFDGAVKVT-----N-
 LcoWntA 209 LVCKCHGLGTCAQKTCWYSLP---KVQVVGKTMK-QKYDIPVRVKW-----S-
 SciWntA 207 LVCKCHGLGTCAQKTCWYSLP---KVQVIGKVKL-NKYTRGLRVRKW-----E-
 ScoWnt-i 214 LVCKCHGLGTCAHRTCWYSLP---KVQVIGKLL-TKYDAMRVRKW-----E-
 SciWntN 216 FLCKCHGFGSGLVQTCWYSLP---TIGVVAEQLL-RKYDKIFRVRVW-----N-
 ScoWnt-ii 221 FLCKCHGVTGSCSYKTCWYGLP---KIQLIGEQLA-KKYDKIFQVVRW-----N-
 SciWntT 243 RVCKCHGLGTCAHRTCWYSLP---KIHVGTSLK-DKYDKSITKVIP-----R-
 LcoWntE 225 LQCKCHGLTGSCAHTCWYSLP---LVRVVGSQLL-KKYEDSTIVRI-----D-
 SciWntE 248 LQCKCHGLGTCAHRTCWYSLP---LVRVGNLLM-AKYESSTAVKM-----S-
 ScoWnt-iii 217 LQCKCHGLGTCAHRTCWYSLP---LVRVVGKLLM-KKYEASTTVKS-----A-
 LcoWntR 248 FLCKCHGLTGSCVHTCWYSLP---KIQIIGRALM-RKHAKSVKVK-----N-
 SciWntR 256 FLCKCHGLTGSCVHTCWYSLP---KIQIIGRALM-RRYGRSLKVP-----D-
 LcoWntC 236 TRCKCHGLGCACTVVICWKEVP---SVTKIGKVLK-DSYRDAKPVRI-----A-
 SciWntC 222 TVCKCHGLGCDCTVVICWKEVP---SVQIGEVVK-ESYREAKQVRI-----A-
 ScoWnt-v 222 RVCKCHGLGCDCTVVICWKEVP---SIKIGKVLK-EAYHDAKLVHI-----A-
 LcoWntI 223 TICCCHGLTGACNVKICWRSIP---KVQVGLILK-DKYRNAMQVSV-----T-
 SciWntI 218 TICCCHGLTGACSVKICWRSIP---KVQVGLILK-DKYRNALQVHI-----S-
 ScoWnt-iv 217 TICCCHGLTGACSVKICWRSIP---KVQVGFILK-EKYRNAMEVAV-----P-
 LcoWntJ 235 RTCKCTGLTGSCTKKICWRSIP---TIQVIGELLM-ESYRNARQVKI-----K-
 SciWntJ 248 RTCKCTGLTGACTSKKICWRSIP---TIQVIGELLM-ENYRNARQVKI-----K-
 LcoWntG 269 IRCRCIHLGSGSCSEKLCWRVLP---SIQRVGERLK-KKFFSAVQVEM-----N-
 SciWntG 266 IRCRCMGLSGSCSEKVCWRVLP---SIQRVGDRLQ-KKFTAQVAVKVRM-----A-
 ScoWnt-vi 264 IRCRCMGLSGSCSDKVCWRVLP---SIQRVGERLK-KKFFSAVAVKVRM-----D-
 OcaWnt2X 260 KQCRCHGASGSCVQSCWNEVP---SMEKVGILLE-KKYRNANVNEV-----V-
 EmuWntC 202 PKCKCTGLGSGCTIQVCWQEAP---DFSVVGSSIK-KLFDSACVQVSW-----N-
 SlaWntC 97 PNCKCVGLSGLSCTIQVCWQEAP---DFSVVGSSIK-KLFDSACLVTW-----N-
 EfrWntC 251 PKCKCTGLGSGCTIQVCWQEAP---DFSVVGSSIK-KLFDSACVQVSW-----N-
 CreWntC 251 KKCSCHGISGSCVFSVCHSELP---PFSTLAKRVK-QAYNDSCLVLP-----N-
 CcaWntX2 287 LQCKCHGTSGSCALFTCWMSLP---RFHEVGRHIV-HQYDQAVQVVS-----N-
 LcoWntD 243 PKCKCTGLGSGCATRTCWREVP---NFRDIGNKIS-ELYTSAKQVOT-----S-
 SciWntD 242 PVCKCTGLGSGCLTRMCWREVP---NFRVGNALF-SLYRSEVETTL-----N-
 ScoWntX1 241 PVCTCTGLGSGCATRVCWREVP---NFRQVGNLTF-RLYSRAQRVQI-----S-
 LcoWntF 275 LQCKCHGLTSSCTVLLCWNEVQ---HFTALGNALK-EKYEQAIRMRIV--IEP-KVPVSA
 SciWntF 280 MKCCQGLGVTSSCSFVVCWNEVE---HFTKISKQLL-QMYERATPKMVAIVDPEKLPNV
 LcoWntQ 356 LKCRCMGINSACNIEVCWREVP---SFTKIGNLIM-ERYKNATQLKA-----D-
 SciWntQ 216 LRRCCHGINSNSCTQVCWKOLP---VFTKIGNLIM-SRYRNASLMKI-----D-
 HdujWntD 202 TDCRCHGQIGSCTIRICYKRLK---PFTGADALTY-DKYRGAVRVTL-----A-
 HdujWntE 208 VVCRCHGLTNDCSIKTCVRHLP---PFKQTSSEML-QKYKSAIKVHA-----G-
 HdujWntF 235 IHCRCHGLTASCNVKTCVHRML---PYTEVASSML-MKYEGAVKVK-----S-
 HdujWntH 233 RSCCHGLTAACNIQTCVHRML---RYSNVANQML-EKYSGAVKVK-----E-
 HdujWntI 220 KYCRCHGLSASCSIRVCHQKLS---SFKTHPEILHTKYRQSLVKS-----D-
 HdujWntG 218 ERCHRRNIFTTFRMLICHYGLD---NVLNPKQPSRIAVAN-----SV
 OloWntII 237 VVCRCLGGTILSCATRVCHRELP---QFSHIGSTLV-DKYNKAVQIKI-----S-
 OcaWntIIa 223 LICRCIGGTFSCATRVCHLELP---VFSYFGTKLK-EKYDSAVQVKI-----S-
 OcaWntIIb 230 VVCRCLGGTIVSCATRVCHLELA---DFAYISDELK-KKYLASAMKVKI-----S-
 OcaWntIIc 218 RLCKCV-----
 OcaWnt5bX 250 IHCRCHGACGACNFQTCWEEK---DWEENVGDDIK-KKYDGAVKVKM-----N-
 OcaWnt6X 271 VNCRCHGPGSSCAVQTCWKEEK---RWEEVSNLIK-EKYDNPVKVTCN-----N-
 LcoWntK 212 TKCEYGVGSGCDLRTCWRRAP---TPEEVAREIF-KRYLSALRTRK--QF----LHLS
 SciWntK 243 KKCSYGVSGSSTLHCTCWQEP---SIEEISAELY-HRYGNAIKTRK--HF----LPTK
 LcoWntU 150 IKCRCHGVSSITCALKTCEMAAP---DLHSTGOTLA-LKYKRSKVKV-----Y-
 SciWntU 198 ISCRCHGVSSSIMRTCIMVTP---DLSTTQOTLA-KKYRQAKKVV-----A-
 SciWntM 230 VICSCYGHSGSCTQKFCVHQVQ---RARTVSLRLM-KQYSRATLVQV-----R-
 ScoWntX3 206 IGCSYGPSSGCTHRCVHRLA---SENALAGKLW-KEYRRAVQVET-----K-
 LcoWntH 218 ENCKOOGISASCIQWHAHAIP---QPALMIRNLT---RGAFRFLP-----WK-
 SciWntH 199 KTCDONGISASCLEMRCYHRLP---STRELVSGLM---NNAVFLPW-----K-
 ScoWntX4 218 KRCKNGVSGSCLNRCYHRLP---EMSEMIRGLM---DNKVFLPW-----K-
 LcoWntB 201 DVCRCHGLSGCCEIQLCIKQFP---SKRVITQALS-QLYLNARQISF-----D-
 SciWntB 211 VKCTCHGLSACNLKTCVTPA---RPAALARELR-RMYDNARFVQP-----Q-
 SciWntO 132 EYCGCRPSFCATCSLTCLGTL---SFSRVSKTIM-SLYYSSVLEET-----N-
 HdujWntK 229 KECKCHGMTGDCISKTCFKKVK---SPRVLAEFIKRDLYHREKVAALD-----K-
 HdujWntJ 230 NYCRCHGPTTSCVTRTCQWKLN---YRSHICTYIKETLYPQARKVAVRA-----G-
 LcoWntP 255 LHCVCTGPSAGCSMTCTCYILOT-KLVKDSGHEIY-NQYRSLRDNPS-----D-
 SciWntP 226 LRFCYSGPSGTCVLRKTCYVETK-RMTRTADALY-QQYQKRVNGGT-----A-
 ScoWntX2 231 LHCVCTGPGSGSCLKTCYVETK-RMTRTALALH-EQYQQLLAGGA-----P-
 LcoWntL 302 RKCSCLGMSCACTVQNCITYMPDILKSRELEYDFK-RAFNAQOQTYV-----K-
 SciWntL 221 RKCHCVGTGSGCLDQVCKYMPDILHEAPLKREFL-RSFNAQKQVYV-----S-
 ScoWntX5 285 RRCQCHGVSGSCLHKSICIGYLPDILNDKS-KKDFG-RSFNAQKQAYV-----S-
 LcoWntS 207 VIKKCFMGSGSACQKKKKTLV---RRAPVSKPLL-ELYDKAAYVKVVL-----D-
 SciWntS 276 EQQNCFGISGVCSEKHTHTII---RAEQAVQYIR-GLYDRADEIKLVK-----D-

AquWntC	255	---ASA-----	L	-----	QPHQCNSSSI
PfiWntC	272	---IINSEDP-----	-----	-----	SFISTDCDKI
HdujWntC	234	---PAGPHT-----	HTL	-----	ALRPACGGSI
AquWntB	252	---VNRG-T-----	TVLRST	-----	SSSNTEAVSP
PfiWntB	199	---VQKD-EP-----	PSL	-----	KSVGDDPMP
EmuWntB	243	---IPRDGSP-----	ASL	-----	YYTDSMQNPVAP
SlaWntB	240	---VPPGGGP-----	ASL	-----	YYADSGPNPVV
EfrWntB	240	---VPRDGGP-----	ASL	-----	YYANSGQNPVAP
AquWntA	243	---ASNS-A-----	LQPV	-----	VQTINN
EmuWntA	119	---SGTT-T-----	LRPVY	-----	SATL
SlaWntA	257	---PGTT-T-----	LRPVY	-----	SASL
EfrWntA	258	---PGMT-T-----	LKPVY	-----	NQNSAL
CreWntA	262	---DGEF-----	-----	-----	ASSNPNDP
PsuWntA	254	---NGELQR-----	H	-----	PIPGANPDNI
CcaWntX1	260	---VTDDGK-----	KKL	-----	VNKLDFQPL
HdujWntL	269	---SGTP-----	VLTPV	-----	DSRTPL
OloWntI	233	---SGGG-E-----	L	-----	EVAERNHVP
OcaWntI	242	---KTTV-S-----	L	-----	QVDDRGQVP
CcaWntI	178	---DADR-E-----	L	-----	IPENPRHIP
LcoWntA	253	---QPRT-N-----	IIPY	-----	SALIDN
SciWntA	251	---AQTE-Q-----	IKPY	-----	SALVTN
ScoWnt-i	258	---QPSE-S-----	LVPY	-----	SALVSN
SciWntN	260	---STEM-E-----	VAPFASD	-----	PLKQSLKQSR
ScoWnt-ii	265	---ATQG-K-----	VESF	-----	TKDPLKKS
SciWntT	287	---ADRR-K-----	LIVL	-----	RATSKR
LcoWntE	269	---LPRK-E-----	LIVK	-----	KAIASKKL
SciWntE	292	---SSGSPR-----	LIVK	-----	RTTATALPL
ScoWnt-iii	261	---SVSTRQ-----	LIVK	-----	RISLTRPPI
LcoWntR	292	---LART-R-----	L	-----	ERLDMGGK
SciWntR	300	---SAKQ-K-----	LVPQ	-----	DTERKV
LcoWntC	280	---HPQAPL-----	LIPAG	-----	VSNVNAQL
SciWntC	265	---HPLSPA-----	LVPANV	-----	ENNAIAASAPN
ScoWnt-v	265	---HPLSPA-----	LAPVGIP	-----	VNSDGVATAED
LcoWntI	267	---PPSPSDRTTSTTATPARQRL	-----	-----	RPLDRHAGT
SciWntI	262	---EAPDVDSPPHEEGSREPPRI	-----	-----	VPLDHLAREA
ScoWnt-iv	261	---ELSDTPGTDIETT---	RRL	-----	VALDPLVPR
LcoWntJ	279	---TKKNGP-----	KLPL	-----	EKDEGKSKV
SciWntJ	292	---AKKNAL-----	RLTPL	-----	DRDEGVKTRI
LcoWntG	313	---PSVPNG-----	LYSIPS	-----	NPRVTRRKA
SciWntG	310	---PRSRTG-----	LAMVMDAA	-----	IGEESRDVK
ScoWnt-vi	308	---EKSRTG-----	LLVLPEDG	-----	TGLAAAGR
OcaWnt2X	304	---KSGSNT-----	KNL	-----	FKFIPMDSSKK
EmuWntC	246	---QYLGTNS-----	-----	-----	NWLSNVCPI
SlaWntC	141	---QYLGTNS-----	-----	-----	NWVSSMCPLI
EfrWntC	295	---QYLGTNS-----	-----	-----	NWISPACPVV
CreWntC	295	---GHSR-----	-----	-----	NDWVAQCDH
CcaWntX2	331	---QMKHDQ-----	LTSVSR	-----	YTFSSIRSH
LcoWntD	287	---TDGT-R-----	LKVT	-----	QFADKVN
SciWntD	286	---AAGD-G-----	LQSVYMATVDAAAGAE	QPTVVVDGGAGDGVTL	LPA
ScoWntX1	285	---DDAS-E-----	LKVAQQ	-----DIS-VPTVAGA-TATPAIADP	---
LcoWntF	328	GE-QHKTEA-----	TALPLFTSGR	-----RNLGLRKNVNWYLVP	AEQDKY
SciWntF	336	TGIPENSTE-----	AQLAPAVLVKK	-----LKVS-QKDIRWELRPAQAGAAY	---
LcoWntQ	400	---KTGS-R-----	L	-----	VLANALS
SciWntQ	260	---RHGT-R-----	L	-----	VVRHALSR
HdujWntD	246	---NHPSPMA-----	-----	-----	GQVVVQGGSL
HdujWntE	252	---VGEA-----	PL	-----	SSWQDD
HdujWntF	279	---PDGL-----	L	-----	KPLNPNADP
HdujWntH	277	---AETN-Q-----	L	-----	LPANALADP
HdujWntI	264	---FQQT-----	L	-----	ISTNQDAV
HdujWntG	257	---FQNGV-Q-----	L	-----	-----
OloWntII	281	---KNGE-R-----	L	-----	KSADSTTGT
OcaWntIIa	267	---KNGE-R-----	L	-----	KNSDSATKPF
OcaWntIIb	274	---KNGE-R-----	L	-----	KNEDSTAKAF
OcaWntIIc	224	-----	V	-----	-----
OcaWnt5bX	294	---HKNT-K-----	L	-----	INSDAKVKKH
OcaWnt6X	316	-----	LAPVPAN	-----	-----
LcoWntK	261	---RARN-----	RS	-----	THRQLSLT
SciWntK	292	---RRQS-----	KTL	-----	TFRQKIRSE
LcoWntU	194	---RGSVDR-----	RPLHL	-----	ARAVKQGR
SciWntU	242	---RGSPDR-----	RPLLQL	-----	ARAVKQHAR
SciWntM	274	---RRSSGG-----	WRI	-----	KEVDGK
ScoWntX3	250	---PRPNGG-----	WRI	-----	KQVGA
LcoWntH	260	---NNRD-VV-----	HSAL	-----	KFRRED
SciWntH	240	---EHRN-QV-----	HHSL	-----	KTVRRRS
ScoWntX4	259	---ENRN-RV-----	QGSL	-----	KSVRGKR
LcoWntB	245	---TAIN-----	L	-----	ENSNV
SciWntB	255	---QARN-----	L	-----	RHVR
SciWntO	176	---SSTD-----	-----	-----	GTSQENT
HdujWntK	276	---LHGA-E-----	L	-----	FTVKPIPTK
HdujWntJ	278	---GHGSLR-----	L	-----	IDAETQTRS
LcoWntP	300	---AVGAAR-----	RHF	-----	KRIPESIDHDRE
SciWntP	272	---AVESAR-----	ALIAEA	-----	QAQPRPATVATH
ScoWntX2	277	---AIASAR-----	KLVKS	-----	IQRGSRTRGQ
LcoWntL	349	---SHISYVGK-----	KKELKNKRV	-----	LWRSGDNMEV
SciWntL	268	---KGQSGK-----	LRL	-----	SKATDHKK
ScoWntX5	332	---TSHSGV-----	KKL	-----	VSSATHIPL
LcoWntS	252	---PYSLRP-----	VIYKWERP	-----	AVAMQIEPVD
SciWntS	321	---YLNTP-----	QIVKKAQIS	-----	HHRIPIHDDDK

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AquWntC 269 -----SNTTLVHTLSS--PDYCHKDIS-----KGSFGVQGRLCDPA-----
PfiWntC 289 -----TNNTLIFDENS--VDYCYRDIS-----VGSFGVKQSC-----
HdujWntC 253 -----ATDTLIYSDSS--PNYCLPDLT-----RGSYGTGRRCRRR-A-----
AquWntB 273 -----PVDSLVHVKNK--VKYCIKQND-----Y----TANRSCI PQ-NILTQIESNEA
PfiWntB 218 -----STSHLVFLKKS--KNMCLYKQN-----Y----TLGRSCVFPK-NILTEYHSSGI
EmuWntB 265 -----SSTEMVYLEPT--VDYCSQSNY-----TLNRYCIPR-SNMTS-----
SlaWntB 262 -----MSEITVYLEPT--VDYCSLQSNY-----TLNRYCVPR-SNMTS-----
EfrWntB 262 -----SRTEIVYLEPT--IDYCSTQSNY-----TLNRYCIPR-SNLTS-----
AquWntA 258 -----HDNELVYLKRS--PTFCNQDTT-----YGILGTVGRQCSNN-L-----
EmuWntA 133 -----NESDLAYLADS--PTFCTADNN-----MGILGTSGRQCNP-T-S-----
SlaWntA 271 -----NQSPLAYIAGS--PDECTANN-----MGILGTSGRKCNP-T-S-----
EfrWntA 274 -----NESDLAYIADT--PDLICVANN-----MGILGTSGRKCNP-T-S-----
CreWntA 276 -----DDNTLIFKDNS--PNECVENRQ-----LGTVGVANRRCNPN-S-----
PsuWntA 271 -----NENNLVFLDNT--PDLCKTDLA-----KILGTAHRLCKEE-----
CcaWntX1 278 -----NTPBLAYLSNS--QDECTADKM-----TLQPGTIGRECNVISIS
HdujWntL 284 -----GQTDLVYLDFP--PSYCDRDDR-----YCSLGTQGRYCKVD-S-----
OloWntI 249 -----SNFDLVYLEST--DYSRECVKDS-----VGSHTGTRGLCDPE-S-----
OcaWntI 258 -----TVTDLIFLET--DPTQECISKVVG-----IGSHGTSGRLCDPD-S-----
CcaWntI 194 -----TDSNLVYLTKS--SDYCKYDPS-----TGSHTGTRGCNK-T-S-----
LcoWntA 268 -----ITTELVSYSKGS--PDYCVNNEE-----TCSLGTSGRECDPL-K-----
SciWntA 266 -----VTDQLLYSTPS--LDYCEANDG-----TCALGTAGRQCDFN-K-----
ScoWnt-i 273 -----LTAQLVFDTPS--VDYCEANAD-----IGAPGTQGRVCPNPR-L-----
SciWntN 282 -----MTEKLVYQPS--PDYCEPNKA-----IGSLGTGGRCEPR-I-----
ScoWnt-ii 283 -----MNEKLVFKDTS--VDYQCPNMA-----IGSLGTGGRCEVFPK-V-----
SciWntT 303 -----KDDDLIHLQDS--PDYCTSNST-----VCSLGTGGRKCSFK-E-----
LcoWntE 287 -----SQEDMVHLRRS--PDYCFSDGS-----AGSLGTQGRICDGT-K-----
SciWntE 311 -----TTEDLVYLRRS--PDYCLSDPA-----AGSLGTGGRICKGK-K-----
ScoWnt-iii 280 -----THEDLVHLRRS--PNYCVSDPE-----VCSLGTGGRICKGK-K-----
LcoWntR 308 -----QVKAVVHLHDS--PSYCVRDES-----IGSLGTGGRKCGTR-S-----
SciWntR 315 -----DIKPSLHLHQS--PSYCDRDPV-----VCSLGTAGRECGQR-R-----
LcoWntC 302 ---ATLATKNLVYMKES--PDECMANTT-----LGIPTGTARRQCIKD-S-----
SciWntC 288 ---PILTTNALVYVKES--PDECVANGT-----IGVAGTARRRCKEN-S-----
ScoWnt-v 289 -----ITSALVYVKES--PDECVANAS-----IGVSGTARRRCKNK-S-----
LcoWntI 297 -----KSSLLVYLAPS--PDYCKPNAS-----IGVNGTAERECRAE-S-----
SciWntI 292 -----EPALTYLHTS--PDYCRPNAT-----IGIKGTGERECNLE-S-----
ScoWnt-iv 287 -----DESELTYLHSS--PDYCKPNAT-----IGINGTARRRCKVE-S-----
LcoWntJ 300 -----KSELTYLTPS--PNECRRNMT-----SGVEGTGRGRCDEL-S-----
SciWntJ 313 -----VATELSYVRQS--PDYCRPNAT-----SISGTRGRQCQL-S-----
LcoWntG 335 -----PSKDLVYAEAS--PSECELSQL-----RASPGTGGRCKPWS-----
SciWntG 334 -----PSKDLVYSETS--PSECIHDQL-----KASPGTGGRCKPWS-----
ScoWnt-vi 332 -----PSKDLVYSETS--PSECNANQL-----KASPGTGGRCKPWS-----
OcaWnt2X 325 -----REDQLVYQSDS--PSYCNDRR-----AFSLGTSGRECNST-A-----
EmuWntC 263 -----TDRTLVYGGQS--PNWCYADPS-----VGSMTGVTGRQCDFN-S-----
SlaWntC 158 -----TDRVLVYGSQS--PNWCIPDPT-----VGSMTGVTGRQCDFN-S-----
EfrWntC 312 -----TDKTLVYGGQS--PNWCYDPT-----VCSLGVVGRQCDFN-S-----
CreWntC 310 -----TDSLLF--TKS--NTWCYDPE-----IGSAGVVGRECDPH-P-----
CcaWntX2 353 -----DSLVLVYEKES--PRYCVRNKL-----VCSLGTGGRCKEQN-S-----
LcoWntD 307 -----APTDLVYSAAS--YSECDIIPP-----LDVFGRTGRVCKQN-S-----
SciWntD 325 -----SENQLVHGSDE--WSYCDANSE-----FDIAGTGRICQTG-S-----
ScoWntX1 316 -----SEFELVQADT--LSECDANPS-----LDIAGTGRICQES-G-----
LcoWntF 371 -----TEDDLVYLDSS--ADYCVENQE-----MGIPGTGRQCHDA-E-----
SciWntF 378 -----SAHELVIYDQS--PDYCKRNDP-----LGVQGTGGRQCHRD-D-----
LcoWntQ 416 -----SKEDLVYIDAS--PAFCREQRS-----LDVLGTSGRECRNT-A-----
SciWntQ 276 -----SSTDVLYLGS--PSECSDFPG-----LDIVGTSGRECRVS-Q-----
HdujWntD 263 -----QRDMVYSDQS--PSYCESNQE-----NMLGTHGRQCDS-H-----
HdujWntE 266 -----TPNDLVYTQDS--PNYCKANPA-----NMLGTSERVCHFD-E-----
HdujWntF 294 -----TDMOLVYFTDS--PDLCAINAT-----MDVPGTKDRKCDPN-T-----
HdujWntH 293 -----TSGDLVYFCD--PDYSVANAS-----MDIPGTKDRKCDPS-K-----
HdujWntI 278 -----TAETVAHLDP--VNSCHMH-----STVCKQCSI-----
HdujWntG 264 ---WNGNLDRTYLTPS--VDYCCDNRLSWGSPPTIPWTRGRCVPRDS-----HLA
OloWntII 297 -----EDTDLVY--ANS--ASLCEPNSA-----FGYDGIHGRECISDDP-----
OcaWntIIa 283 -----DDGDFVYGTDG--GSLCEPNPA-----FGYEGVHGRECSKD-R-----
OcaWntIIb 290 -----DKSFLVYGTDG--GSPCLVNP-----FGYEGVHGRNCSKD-R-----
OcaWntIIc 225 -----R-----
OcaWnt5bX 310 -----IHSFLVFLQDS--PNLCTENGE-----LGEVGTGGRKNGT-S-----
OcaWnt6X 323 -----KIPNLVCQNES--PDLICVNDK-----VGEVGTGNRKCST-S-----
LcoWntK 277 -----KRDQLVEMKHS--PDECTSQPT-----LGFPGTYGRRCETFT-----
SciWntK 308 -----RPGQLAYLRSS--PDYCTADAS-----RGIPGTGRRCERTFS-----
LcoWntU 216 ---NLTEYMLHYTDP--PDECTKDV-----GGIPGNTGRPCSSH-K-----
SciWntU 267 HVGLNISLYQLHYTNS--PDECTPDV-----RGIPGTGRGVCSTK-V-----
SciWntM 291 -----SKNSLVYSTPS--PDYQCPDVA-----LGYPGTKDRECTND-S-----
ScoWntX3 267 -----SKETFVYSTLS--PNYCEQNVH-----LGYPGTGRKCLDD-E-----
LcoWntH 279 -----GKTTLVYMKKS--PSYCCADNS-----QGITGTGRTCFGK-----
SciWntH 258 -----GKTTLVYMKRS--PSYCCDRS-----QGILGTGGRSCNSH-----
ScoWntX4 276 -----GKTFLVYMKRS--PSYCCSDPS-----QGILGTGGRSCNGQ-----
LcoWntB 255 -----SNKALVYIHDS--PNECKRRPF-----YGHFGVTGRRCNPS-G-----HLA
SciWntB 265 -----APTQLVYTAHP--PSMCQPLPD-----LGFPGIQNRQCTMPFS-----
SciWntO 187 -----TNISLVHL--QT--PDYQESHA-----LGSPTGRRCRCEMR-TIAQEV-----V
HdujWntK 292 -----SHTSLVFTEDS--PNYCVSNIE-----YGALNVSGRECVES-Q-----
HdujWntJ 295 -----PHDMLVYTEE--PDYCESASV-----FGAVDSNRRRCLP-G-----
LcoWntP 321 -----KPPVLAAPRAS--PNYCTSSKR-----HGILGQHRRCVAF-QCGTK-----
SciWntP 296 -----RNMSVYATRHS--PNYCRRNSN-----WLLGPRGRSREACG-----
ScoWntX2 298 -----RNITVYASRPS--PSYCRPSK-----WGILGPNRRCYTAG-----
LcoWntL 377 -----TDTQLTYRPS--PKLCHFHR-----HIAPPVGERNCSLA-P-----
SciWntL 286 -----GNTLVYFRPS--PRLCSHFR-----PIGPPVHRYCKNITG-----
ScoWntX5 350 -----RSDQLAFQSS--PILCSHNR-----PIGPPVGERYCNAT-A-----
LcoWntS 280 -----QPTMIVYLLKKS--PSECHGK-----YGLAKPSGRPEEE-G-----
SciWntS 348 -----RKEQLIYARKS--PNECRRR-----YGLPGPSGRQCDDID-G-----

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AquWntC 303 -----V^{*}SKS^{*}CET^{*}IC--CGRGHIEFTKDVE-GRC-C^{*}KQV-----GC--CGV^{*}

PfiWntC

HdujWntC 288 -----PPTHPESSSLC--CGRGQLVQTTAA-YHGC-RFE-----NFQI

AquWntB 314 NP-THYPGYPLPACESLC--CSGEMTEEYTVS-TTCYC-HFV-----WC--CKI

PfiWntB 259 EP-LTSVDLTLAPCEDLC--CAGEYSLKRTVVV-RSCNC-HFV-----WC--CDI

EmuWntB 300 -----YLGYYSTCEDLC--CNGQVTVKTI RT-YSCNC-KFI-----WC--CNV

SlaWntB 297 -----YLSGYYSACEDLC--CNGKYITLQRTRT-YSCNC-KFI-----WC--CNV

EfrWntB 297 -----YLTGYAAACEDLC--CNGRVTVTRT RT-YSCGC-KFI-----WC--CNV

AquWntA 293 -----SDPDS^{*}CDI^{*}IC--CGRGHITVTATQP-KQC-C-SFI-----YC--CRI

EmuWntA 168 -----LGLDSCFYLC--CNRGYTAKTRIVP-EEC-C-QFV-----WC--CRI

SlaWntA 306 -----QLDSCYFLC--CGRGYTAKTTIVP-QQC-C-QFV-----WC--CRI

EfrWntA 309 -----QLDSCYFLC--CGRGYTAKTTVVP-QEC-C-QFV-----WC--CRI

CreWntA 311 -----NSRNACASTC--CDRGHHTITKHVPIEEC--KFI-----WC--CRI

PsuWntA 305 -----PCLLD^{*}CANLC--CGRGYTVTYTVPIEEC--RFV-----WC--CRI

CcaWntX1 314 -----SEEGSCSYLC--CGRGHMTLILDD-REC-C-RFH-----WC--CEV

HdujWntL 319 -----VGVDSGHL^{*}C--CGRGRVEYLEVP-ELCNC-RLT-----DCPNSCRF

OloWntI 286 -----SCTEGCAHL^{*}C--CGRGYDTFEETDI-EKCNC-KFV-----WC--CRI

OcaWntI 295 -----SCIDRCDHL^{*}C--CGRGYTTREEVDR-FDCNC-RFV-----WC--CSI

CcaWntI 229 -----DCIDGCSLMC--CNRGYYSREVTLT-RRCKC-QFI-----WC--CHV

LcoWntA 303 -----TCPGGCQKLC--CNRGHNERRHVET-RKCKC-QFI-----WC--CHV

SciWntA 301 -----TCPGSCNHL^{*}C--CARGYNERRRIEE-RKCNC-KFL-----WC--CRV

ScoWnt-i 308 -----SCVGGCTRLC--CGRGHNERRRIET-KKCKC-KFV-----WC--CRV

SciWntN 317 -----ACPTSCDTVC--CGRGNERRRIAS-QRCRC-RFH-----WC--CRV

ScoWnt-ii 318 -----DCTSSCDEV^{*}C--CGRGNERRRIES-KTCAC-KFL-----WC--CKV

SciWntT 338 -----GAENHCDKMC--CGRGNVRRRINN-EKCS-C-RFE-----WC--CRV

LcoWntE 322 -----SSSQGS^{*}CDHL^{*}C--CGRGNVQRYTEE-EQCRC-KFV-----WC--CHV

SciWntE 346 -----SCYGGCDHL^{*}C--CNRGNVQRYAEK-EKCKC-KFV-----WC--CHV

ScoWnt-iii 315 -----SCYGGCDHL^{*}C--CNRGNVQRYTRK-EQCRC-AFV-----WC--CHV

LcoWntR 343 -----TLMGNCDRLC--CGRGQTRRFIFQ-EKDCD-HFE-----WC--CRV

SciWntR 350 -----VKQSI^{*}CP^{*}TL^{*}C--CDRGSMPRAVLH-KQCNC-RFE-----WC--CRV

LcoWntC 340 -----KCEDGCELL^{*}C--CGQGYEYRIVKR-EQCRC-KFV-----WC--CDV

SciWntC 326 -----KESDGC^{*}ELL^{*}C--CGNGYFETRAVKR-EQCEC-KFV-----WC--CEV

ScoWnt-v 324 -----QESDGC^{*}ELL^{*}C--CGNGYFETRDVKR-EQCAC-KFV-----WC--CEV

LcoWntI 332 -----REDDGCELL^{*}C--CGNGYVVKRSVLR-QKRC-C-KFI-----FC--CEV

SciWntI 327 -----REDDGCELL^{*}C--CGNGHHPQRSVLR-QQCKC-KFV-----FC--CKV

ScoWnt-iv 322 -----REDDGCELL^{*}C--CGNGYVVKRSVLR-QKRC-C-KFI-----FC--CDV

LcoWntJ 335 -----HEDDGCELL^{*}C--CGRGYAKRTVKL-QKRC-C-RFL-----WC--CKV

SciWntJ 348 -----TEDDGCELL^{*}C--CGRGYAKRTVTT-KKCKC-RFH-----WC--CRV

LcoWntG 370 -----ADEDSQSLC--CGRGRTIEETLQ-ERCRC-KFH-----WC--CRV

SciWntG 369 -----PEDDSQHL^{*}C--CGRGYTTERKRV-ERCRC-RFH-----WC--CRV

ScoWnt-vi 367 -----KCEDNCEQL^{*}C--CGRGYTTEEKRV-ERCRC-TFH-----WC--CRV

OcaWnt2X 360 -----NDHASTSN^{*}FNLC--CGRGYDVITEIRQ-KNCRC-HFN-----SC--CAV

EmuWntC 298 -----SESNRCS^{*}SLC--CDRGYVETQVTD-TDCNC-KFV-----YC--CSI

SlaWntC 193 -----SCPNSQSS^{*}SLC--CNHGYVQTQIAQD-TDCNC-KFV-----YC--CSI

EfrWntC 347 -----SCTNKCS^{*}SLC--CDHGYVQTQTQON-SDCNC-KFV-----YC--CSI

CreWntC 344 -----EAPNSCNKLG^{*}GGCKRPSIQQTVEEV-VQDCD-QFI-----FC--CEI

CcaWntX2 388 -----QSTNSCLHLC--CGRGRVKYLVVEE-YDEEC-SFR-----WC--CRV

LcoWntD 342 -----DSDSDCNLC--CGGCHKQRTVTT-TQCS-C-RFF-----WC--CSV

SciWntD 360 -----GESDSCRS^{*}MC--CYRGYQGQTVTQK-ARCNC-RFV-----FC--CSV

ScoWntX1 351 -----SES^{*}DGCG^{*}PLC--CFRGYRAATVTQH-SPGCG-RFV-----WC--CNV

LcoWntF 406 -----DDTSPGTCKRLC--CGRGHRTVTRTIR-TSCHC-RFV-----YC--CRV

SciWntF 413 -----DFSPGSCSLC--CNRRVRTVTRVIR-QSCHC-KFV-----YC--CRV

LcoWntQ 451 -----DGS^{*}LDC^{*}DVLC--CGRGH^{*}TT^{*}VEHIT^{*}-TRCNC-RFI-----FC--CRV

SciWntQ 311 -----DHTPDSCDVLC--CDRGYRTVTDHTT-TSCNC-RFV-----FC--CRV

HdujWntD 298 -----ALGSDCVLC--CGRGYWRTTKSIPIRK^{*}ET-MED-----STTGRFEV

HdujWntE 301 -----TKPGSQQLC--CGRGQHETERVVLKQEC--KLV-----AI-RDGNV

HdujWntF 329 -----QGTGSCQLC--CSRGYTKTRETNVYVT--DFD-----TT--TFRI

HdujWntH 328 -----HGLGSCDLFC--GGRGYKRTITPTIYER--HFD-----FN--QFKI

HdujWntI 306 -----VQCRQTC--GSSQY^{*}ERTVIVSMPIC--FLV-----ML--GGV

HdujWntG 309 -----PSGHLLCGVLC--CGRGYQAKSQPVE--HC-RFV-----YV--SGR

OloWntII 332 -----SAPNYCPSEFC--GGYGYFSYIEKK-RSCRC-KLK-----CC--FEL

OcaWntIIa 318 -----TAENYCGSLC--CSFGNTFVERKK-KSCRC-RIEVIVG--CC--FDL

OcaWntIIb 325 -----QEGNYCGTLC--CGYGYKTYIERKK-KSCRC-QIKVVEH--CC--FKL

OcaWntIIc

OcaWnt5bX 345 -----DLAEDSCSILC--CGRGYKTMTRQEV-YPCNI-RLR-----RKPP--INI

OcaWnt6X 358 -----TQPDSSCRILC--CGRGYITVTKITT-ISCNP-RLR-----RKPP--IGI

LcoWntK 313 -----SDEGSCLSMC--CGGGNVVEEVEE--EVCEC-RHV-----FC--CRR

SciWntK 344 -----TEVSGSCYNLC--CGGSHAETVEE--TVDCD-QII-----YC--QYR

LcoWntU 253 -----ASHSCDVLC--CGREP^{*}AVKERTR-ROC--RRV-----ATIRGGKL

SciWntU 308 -----GHERECNKLC--CGREPLDRKYRRG-ROC--KWG-----ITIGSGKV

SciWntM 326 -----SDDEESSCKLC--CGRGY^{*}SARTYVKM-VNCHCTRRR-----FP--WPV

ScoWntX3 302 -----SIGSCARLC--C-RGHITNTHTRM-ERCEC-SAS-----YF--PRR

LcoWntH 313 -----ESCKKIC--GSTTVEKVRTG--SRCNC-KYM-----YC--CSL

SciWntH 292 -----DSCRKIC--GSEEKEEIGL--DRCNC-KFI-----FC--CEL

ScoWntX4 310 -----ESCRKVC--GSKVEVQMGs--NMCNC-KFH-----FC--CRL

LcoWntB 293 GP--SASKDLPICKDL^{*}C--CGAGVRSKRTPV--YKEMC-RFI-----WC--CVK

SciWntB 301 NPVAF^{*}TLLPKPGACSALC--CGRN^{*}ILSKDVSVV-YKSV^{*}C--DFK-----WD--TGR

SciWntO 227 NE--T-GPHQDGACQYLC--CGRGQRFETFRSP-YKCLC-SWSI-----AGF

HdujWntK 328 ---QLYHHHRKIGIC^{*}DL^{*}C--CN-GHRVVTEEE-YICRC-VMN-----

HdujWntJ 330 ---QSYVQNR^{*}LGT^{*}CGKIC--CNGYV^{*}NK^{*}PKV^{*}RTQ^{*}-HRCIA-QTKQ-----

LcoWntP 360 ---VSVNFQCTPACDDVC--CGTFETRNTS---VPCDC-KYS-----WKF--NKI

SciWntP 332 E--NVEYFTCTSPACNEIC--CGRLH^{*}THVTE---YQDCD-KLED-----WDL-----

ScoWntX2 334 RP-NGE^{*}HFGDTSHCQDLC--CGRSGSQVTE---YACNC-RMQKDA-----WVL-----

LcoWntL 412 -----QGTVIGSCKYLC--CGYKPKRVVTQVK-KPCNF-VLQKVAG-GGARYTY-----

SciWntL 322 -----PGIVPGSCEYLC--CGGQTEKEIEKVP-YTCNA-RLRRMPNAEGYRWIF-----

ScoWntX5 385 -----EDG^{*}IGSCHYLC--CGGPVETVTEVTE-RRCNA-TLVK-----DGTRYSY-----

LcoWntS 313 -----NPDGITCAGLC--CGGVVRRRRNMNV-VKSO^{*}C-VFV-----FC--CRI

SciWntS 381 -----DDGLTCDILC--CGRGYL^{*}TRVVEYHFPQCKPEQQL-----PC--CYT

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AquWntC      338  ----QC-NDC----KRTL-TFYACR-----
PfiWntC
HdujWntC    325  ----KC-DEC----QSTV-TLSVCR-----
AquWntB     357  ----SC-EEC----EKTL-TRYKCTG-----
PfiWntB     302  ----IC-DDC----AVTV-DTYKCTS-----
EmuWntB     339  ----VC-STC----TETM-VQYKCTS-----
SlaWntB     336  ----VC-STC----TETV-VQYMCTG-----
EfrWntB     336  ----VC-NTC----TETV-TQYKCTS-----
AquWntA     328  ----EC-QDC----GEETF-TEYFCR-----
EmuWntA     203  ----EC-TVC---RNNTV-TDYFCN-----
SlaWntA     341  ----EC-TNC---KNVTM-TDYFCN-----
EfrWntA     344  ----EC-TYC---KNVTM-TDYFCN-----
CreWntA     341  -----X-----
PsuWntA     340  ----DC-AVT---GSKTI-VERRCNP-----
CcaWntX1    349  ----RC-TTC---RRQR-EAAICD-----
HdujWntL    358  ----RC-DTC---NKLE-PHFECN-----
OloWntI     322  ----EC-EKC---YRKV-KRSYCKE-----
OcaWntI     331  ----KC-DKC---EKRV-KRSYCKE-----
CcaWntI     265  ----KC-ETC---KERV-IKHFEN-----
LcoWntA     339  ----RC-QTC---KGVK-RWYTCR-----
SciWntA     337  ----VC-SRC---LTVN-KHYTCR-----
ScoWnt-i    344  ----EC-ERC---RTVS-KRYTCV-----
SciWntN     353  ----EC-DWC---RVVS-KKYTCW-----
ScoWnt-ii   354  ----HC-KQC---RTVT-KKYTCL-----
SciWntT     374  ----KC-KRC---RVAK-QSETCM-----
LcoWntE     360  ----QC-KTC---TVHK-ERHTCN-----
SciWntE     382  ----RC-RTC---LENK-ERHTCN-----
ScoWnt-iii  351  ----RC-KTC---TVNK-ERHSCN-----
LcoWntR     379  ----KC-DTC---ERAG-EIYWCE-----
SciWntR     386  ----RC-DTC---E EVE-ETKCKR-----
LcoWntC     376  ----KC-DWC---EPVY-QQFYCKTPKRTSA-----
SciWntC     362  ----KC-QWC---HKVY-RYFHCKMPRPQVA-----
ScoWnt-v    360  ----KC-QWC---HRVY-QNHCKQPRLQVT-----
LcoWntI     368  ----VC-DSC---IVAW-ETHHCNGPRAIE-----
SciWntI     363  ----VC-DYC---LVAW-ETHHCNDPLQLTARK-----
ScoWnt-iv   358  ----VC-DSC---LVAW-ETHHCNGPLLSAK-----
LcoWntJ     371  ----VC-DEC---ITAT-ETHECN-----
SciWntJ     384  ----VC-DQC---ISAE-ETHECN-----
LcoWntG     406  ----TC-DRC---VSRK-KIHVCN-----
SciWntG     405  ----TC-DRC---VSVQ-EIHTCN-----
ScoWnt-vi   403  ----TC-DRC---VSTQ-EIHTCN-----
OcaWnt2X    398  ----KC-ETC---TSTK-EKYICK-----
EmuWntC     334  ----QC-SKC---HTVT-TTYVCL-----
SlaWntC     229  ----QC-SKC---HTVT-TAYVCL-----
EfrWntC     383  ----QC-LKC---HTVK-TTYVCL-----
CreWntC     382  ----KC-ETC---TERR-TYFSCS-----
CcaWntX2    424  ----EC-KTC---RRKT-PYHVCR-----
LcoWntD     378  ----KC-STC---TKVH-EETTCAPE-----
SciWntD     396  ----KC-EEC---TTEF-ERNTCN-----
ScoWntX1    387  ----KC-DTC---TNSY-KRNTCS-----
LcoWntF     444  ----EC-QTC---EHTI-TEHFEN-----
SciWntF     450  ----EC-QTC---TRQI-TEHFCAADV-----
LcoWntQ     488  ----WC-STC---ESVR-RRHFEN-----
SciWntQ     348  ----RC-DQC---ETVR-RRHFEN-----
HdujWntD    338  ----LC-SVT---GNDIE-NRYFCN-----
HdujWntE    338  IKGFSPKC-TDV---PRRI-REYVCN-----
HdujWntF    365  VQ-----KLL---RTDTV-REHFEN-----
HdujWntH    364  VN-----RIV---RYETN-TKHFCN-----
HdujWntI    338  FR-----NTCVVTGTRMA-TQYTCQ-----
HdujWntG    344  FQ-----HIC---GRKMM-EKYCR-----
OloWntII    368  ----IC-DVC---IVER-TKYRCK-----
OcaWntIIa   358  ----RC-DTC---YDDV-EKYRCK-----
OcaWntIIb   365  ----VC-DTC---FDEI-ERYRCK-----
OcaWntIIc
OcaWnt5bX   384  ----VW-DDC---IRTA-TEYFCL-----
OcaWnt6X    397  ----EW-GTC---YKLI-TEHFEN---CHST-----
LcoWntK     348  ----VC-ENC---RTEIKTVHRCN-----GL
SciWntK     381  ----VCTKNC---RTVRRTIRKCN-----QF
LcoWntU     290  GW---KCVKPC---VSVV-RHYSCR-----
SciWntU     345  GS---RCRRYC---IYVY-KSYFCG-----
SciWntM     364  ----RC-QSC---REEE-LRYFCR-----
ScoWntX3    337  ----VCKKVC---QVQV-HEHFCK-----
LcoWntH     344  ----RC-ELCQE---KVRCKRPTQCGDSTPSIAPG-RRDE-----
SciWntH     322  ----KC-EKCLR---RQYRCKKST-CSSSTSSRS---RDEL-----
ScoWntX4    340  ----QC-EECRV---RMYRCMAPT-C---ETNSRS---RDD-----
LcoWntB     333  ----ECVNEP---TGYQTTHCR-----
SciWntB     345  ----KC-VKS---RMTS-AFYVCV-----
SciWntO     267  ----KC-QTC---HATR-RLYFCV-----
HdujWntK    363  ----DCQTC---TRKV-VRNFQV-----
HdujWntJ    367  ----DFCQHSYTRLM-DSYFCR-----
LcoWntP     399  ----LCKTTCHR---QDTVCS-----GE
SciWntP     370  ----RC-KIC---SRAV---TVCA-----
ScoWntX2    376  ----VC-QSC---SREV---TACLPPE-----
LcoWntL     456  ----DMC---NVST-VHYKCPSSNGLSRTRKRG---R-----
SciWntL     367  ----DTC---YKEV-HKCKSERKERQRASPSSIA-----
ScoWntX5    426  ----QF-QVC---RDEH-LRTCKSRRPSNRRSSGVTTLR-----
LcoWntS     350  ----PC-AMT---TKVFTQTYCR-----
SciWntS     420  ----SC-VQS---SNRR-VMTFCR-----

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