Species-group	Species	Endoplasmatic Reticulum					Golgi Apparatus						TGN	Endosomes/Lysosomes										Secretion						Polarized		
		Qa.I	Qb.I	Qc.I	R.I		Qa.II	Qb.II		Qc.II		R.II	Qa.III.a	Qa.III.b				Qb.III	Qc.III		R.III			Qa.IV	Qbc.IV			R.IV		R.Reg		
		Syx18	Sec20	Use1	Sec22	Sec22-like	Syx5	Memb	Gos28	Bet1	Gs15	Ykt6	Syx16	Syx7	Syx13	Syx17	Syx20	Vti1	Syx6	Syx8	Vamp7	Vamp7-like/Endo	Vamp4	Syx1	SN25	SN29	SN47	Syb	Myob	Tom	Ami	Lgl
Ichthyo-sporea	Amoebidium parasiticum																											*				
	Capsaspora owczarzaki																				*							*				
Choanofl.	Monosiga ovata											*	*					*	*	**	*			*	**			**				
	Monosiga brevicollis	*			*		*	*	*		*	*	*	*				**	*	*	**			*	*			*		*		
Placozoa	Trichoplax adhaerens	*	*	*	*		*	*	*		*	*	*	*		*	*	**	*	*	**	*		****	**		*	**		*		*
Porifera	Oscarella carmela															*	*		*													
Cnidaria	Nematostella vectensis	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	**	*	*	*	*	*	*	*	*	*	*		*		*
	Acropora aspera								*																							
	Acropora millepora				*	*			*		*		*	*											*			*				
	Acropora palmata								*				*																			
	Montastraea faveolata			*																												
	Hydra magnipapillata	*		*	*		*	*			*	*		*		*		**	*	*	*		*			*	*	*				
	Hydractinia echinata					*					*																					
	Hydra vulgaris				*																											
Annelida/ Mollusca	Platynereis dumerilii		*	*	*			*	*	*		*		*		*		*		*						*		*				
	Hirudo medicinalis																							*	*			*				
	Lumbricus rubellus	*										*																				
	Capitella sp. I	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	**	*	*	*	*	*	*	*	*		*		*		*
	Helobdella robusta	*	*	*	*		*	*	*	*	*	**	*	*			*	*	*		**			***	**	*		***		**		*
	Aplysia californica		*									*						*			*			*		*		*				
	Euprymna scolopes	*		*			*				*	*					*	*	*	*							*					
	Mytilus californianus				*													*			*		*									
	Lymnaea stagnalis																							*	*			*				
	Biomphalaria glabrata		*														*									*						
	Lottia gigantea	*	*	*	*	*	*	*	*	*	*	*	*			*	*	**	*	*	*	*	**	*	*	*	*	*		*		*
	Loligo pealei																							*	*			*				
Echino-dermata	Strongylocentrotus purpuratus	*	*	*	*	*	*	*	*		*	*	*	*		*		*	*	*	*	*	*	*	*	*	*	*		**		*
	Lytechinus variegatus																											*				
	Paracentrotus lividus		*		*			*		*	*							**	*	*					*							
	Asterina pectinifera									*	*										*											
Uro-chordata	Halocynthia roretzi		*		*																			*				*				
	Oikopleura dioica																								*							
	Ciona intestinalis		*	*	*		*	*	*	*	*	*		*		*		**	*	*	*	*	*	***	*	*		*		*		*
	Molgula tectiformis			*	*		*	*	*		*	*		*				*			*				*	*		*		*		
	Ciona savignyi	*	*	*	*		*		*	*	*	*	*	*				*					*		*					*		
	Diplosoma listerianum																				*											
	Saccoglossus kowalevskii				*																											
Cephaloch. Craniata	Branchiostoma floridae	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	**	*	*	**		*	*	**	*	*	*		**		*
	Eptatretus burgeri														*																	
Vertebrata	Petromyzon marinus				*		*			*	*	*					*	*			*			**	**			*			*	
	Xenopus laevis	*	*	*	*	**	*	*	*	*	*	*	*	*				*	*	*	*	*		*****	***	*		**			*	**
	Xenopus tropicalis	*	*	*	*	*	*		*	*		*	*	*	*		*	**	**	*	*	*	*	********	****	*		**	*	**	*	**
	Cynops pyrrhogaster																								*							
	Ambystoma tigrinum			*	*			*															*		***			*	*			
	Ambystoma mexicanum				*																											
	Homo sapiens	*	*	*	*	**	*	*	*	*	*	*	*	*	*	*	*	**	**	*	*	*	*	*******	***	*	*	***	*	**	*	**
	Mus musculus	*	*	*	*	**	*	*	*	*	*	*	*	*	*	*		**	*	*	*	*	*	********	***	*	*	***	*	**	*	**
	Canis familiaris	*	*	*		*	*	*	*		*		*	*		*	*	*	**	*	*	*		*****	*	*	*	**	*	*	*	**
	Rattus norvegicus	*	*	*	*	**	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*	*	*******	***	*	*	***	*	**	*	**
	Pan troglodytes			*		**	*	*	*		*	*	*	*	*	*	*	**	*	*		*	*	******	**	*	*	*	*	**	*	**
	Pongo pygmaeus	*			*				*		*		*	*	*				*		*	*		**	***	*						*
	Macaca mulatta	*	*	*	*	**	*	*	*	*	*	*	*	*	*	*	*	*	**	*	*	*	*	*****	**	*	*	***	*		*	
	Oryctolagus cuniculus			*	*		*	*		*				*									*	*	**			*				
	Macaca fascicularis					*							*											*	**			*				
	Bos taurus	*	*	*	*	**	*	*	*	*	*	*	*	*	*	*	*	*	**	*	*	*	*	*******	***	*	*	***	*	**	*	**
	Ovis aries																							*								
	Cricetulus griseus				*				*																							
	Sus scrofa				*													*														
	Ornithorhynchus anatinus																				*									*	*	
	Monodelphis domestica	*	*	*	*	**		*	*			*	*	*	*	*		**	*	*	*	*	*	******	***	*	*	***		**	*	
	Equus caballus		*		*	*	*	*	*	*		*	*	*		*		**		*		*	*	****	***	*	*	***	*	*	*	
	Felis catus																							*								
	Cavia porcellus						*				*							*				*		*	***		*					
	Tetraodon nigroviridis	*	*	*	**	**	*	*	**	*	*	*	*	*	*			*	**		*		*	********	**	*	*	**		**	*	**
	Danio rerio	*	*	*	**	**	**	*	*	*	*	*	*	*	*	*		**	**	*		*	*	********	*******	*	*	****	*	**	**	*
	Takifugu rubripes					*																						*				
	Lateolabrax japonicus																							*	*			*				
	Oncorhynchus mykiss				**	*																**		*								
	Carassius auratus																								**							
	Scophthalmus maximus																						*					*				
	Torpedo marmorata																								*							
	Fugu Rubripes	*	**	*	**		*	*	**	*	*	*	*	*	*	*		**	*		*	**	*	*********	****	*	*	****	*	**	*	*
	Gasterosteus aculeatus			*	*	*									*		*				*	*										
	Oryzias latipes		*	*	**	*		*	**	*	*		*	*	*			**	**		*	**	*	*****	*****	*		***	*	***		
	Leucoraja erinacea				*	*				*	*	*								*		*	*		*		*	*				
	Ictalurus punctatus			*	*			*					*	*				*				**	*	**	***	*		**	*			
	Pimephales promelas				**	*							*				*					*										
	Rutilus rutilus				*	*		*	*	*	*							*		*			*	**		*		*			*	
	Cyprinus carpio																	*				***		*	****							
	Misgurnus anguillicaudatus																					*	*						*			
	Salmo salar			*	**																	**										
	Poecilia reticulata	*						*	*	*		*						*			*	*	*	*	**	*		*				
	Osmerus mordax		*	*			*	*	*		*	*		**	**			*			*		*	***	**	*	*	*			*	
	Fundulus heteroclitus					*																*										
	Platichthys flesus				*		*															*										
	Hippoglossus hippoglossus		*		*			*		*		**			*					*	*	**	*	**	*	**						
	Gadus morhua																					*										
	Squalus acanthias								*		*							**		*		*	*		*	*		*			*	
	Gobiocypris rarus																								*							
	Gallus gallus	*	*	*	*	**		*	*	*	*	*	*	*	*	*	*	**	*	*	*		*	******	**	*	*	***		**	*	*
	Taeniopygia guttata		*						*	*			*	*	*	*	*	*					*	****	**			**		**		
	Coturnix coturnix																							*								
	Meleagris gallopavo		*	*																												
Tardigrada	Hypsibius dujardini																											*				
Chelicerata	Acanthoscurria gomesiana										*																					
	Boophilus microplus	*	*	*	*		*	*			*	*		*				*	*	*	*		*									
	Argas monolakensis									*																						
	Blomia tropicalis																											*				
	Ixodes scapularis				*		*			*		*							*													
	Rhipicephalus appendiculatus						*														*			*				*				
	Aleuroglyphus ovatus											*																				
	Mesobuthus gibbosus																								*							
Crustacea	Procambarus clarkii																								**							
	Carcinus maenas				*																							*				
	Homarus americanus			*	*																				*							
	Marsupenaeus japonicus																								*							
	Daphnia magna		*																	*								*				
	Daphnia pulex	*	*	*	*		*	*	*		*	*	**	*		*	*	**	*	*	**		*	***	*	*		**		*		
	Limulus polyphemus																							*								
Insecta	Anopheles gambiae	*	*	*	*		*	*	*	*		*	*	*		*	*	**	*	*	*			**	*	*		**		*		*
	Drosophila melanogaster	*	*	*	*		*	*	*	*		*	*	*		*	*	**	*	*	*			**	**	*		**		*		*
	Drosophila pseudoobscura	*	*	*	*		*	*	*	*		*	*	*		*	*	*		*	*			**	*	*		*				*
	Apis mellifera	*	*		*		*	*	*	*		*	*	*		*	*	*	*	*	*		*	**	*	*		**		*		*
	Leucophaea maderae																								*							
	Bombyx mori		*	*	*		*	*		*									*		*				*	*						
	Culex pipiens																	*														
	Drosophila yakuba				*																							*				
	Tribolium castaneum	*	*	*	*		*	*	*	*		*	*	*		*	*	**	*		*			**	*	*		**		*		*
	Aedes aegypti	*	*	*	*			**		*			*	*		*	*	*	*	*				****	*	*		*		*		*
	Pediculus humanus																								*							
	Lutzomyia longipalpis		*				*	*				*		*					*	*	*				*	*						
	Chironomus tentans																				*			*	*							
	Acyrthosiphon pisum			*	*		*	*	*							*					*			*		*						
	Glossina morsitans		*		*		*		*					*		*		*		*	*					*						
	Locusta migratoria				*					*											*											
	Oncometopia nigricans																	*														
	Diaprepes abbreviatus			*																				*								
	Platystomus albinus				*																											
	Heliconius erato				*																*											
	Aphis gossypii								*												*											
	Papilio dardanus									*																						
	Rhynchosciara americana									*		*																				
	Myzus persicae	*			*		*	*										*														
	Toxoptera citricida																				*											
	Spodoptera frugiperda																				*											
	Drosophila ananassae																	*														
	Solenopsis invicta				*			*		*		*						*					*			*						
	Gryllus bimaculatus				*																		*									
	Drosophila willistoni																				*											
	Laupala kohalensis				*							*																				
	Nasonia vitripennis	*	*				*	*				*	*	*			*				*		*	**	*	*		**		*		
	Diabrotica virgifera virgifera				*																											
Platyhel-minthes	Schistosoma japonicum	*	*	*	*			*	*	*	*	*	*	*			*	*	*		*			*	**	*		***		*		
	Schistosoma mansoni	*	*	*	*		*	*	*	*	*	*					*	*	*		*			***	**	*		***		*		
	Schmidtea mediterranea			*	*			*		*			**	***				*			**			**	*	*		******		*		
	Dugesia japonica																								*							
	Dugesia ryukyuensis				*														*		*							*				
	Echinococcus granulosus													*					*						*							
	Clonorchis sinensis																											*				
	Paragonimus westermani													*							*											
	Taenia solium				*																											
Nematoda	Caenorhabditis briggsae	*	*	*	*		*	**	*	*		*	*	*		*		*	*		**			****	*	*		***		*		*
	Caenorhabditis elegans	*	*	*	*		*	**	*	*		*	*	*		*		*	*		**			****	*	*		****		*		*
	Caenorhabditis remanei						*	**					*					*			*			**	*			**				
	Heterodera glycines						*	*	*							*		*			*				*							
	Strongyloides stercoralis							*				*		*											*							
	Trichinella spiralis		*		*			*		*		*						*	*					*	*	*		**				
	Haemonchus contortus				*				*					*		*		*								*						
	Bursaphelenchus mucronatus									*																						
	Meloidogyne arenaria									*																						
	Meloidogyne hapla			*						*						*																
	Parastrongyloides trichosuri		**																													
	Trichuris muris												*																			
	Strongyloides ratti															*								*								
	Ancylostoma ceylanicum														*				*		*											
	Globodera pallida		*		*										*			*														
	Pristionchus pacificus				*					*		*				*		*												*		
	Meloidogyne chitwoodi			*	*					*						*		*	*													
	Meloidogyne javanica		*							*																						
	Bursaphelenchus xylophilus		*																									*				
	Necator americanus		*																													
	Xiphinema index				*		*		*						*						*											
	Meloidogyne paranaensis			*						*																						
	Pratylenchus penetrans			*																												
	Globodera rostochiensis			*	*							*																				
	Meloidogyne incognita			*																												
	Trichuris vulpis																							*								
	Teladorsagia circumcincta																											*				
	Ascaris suum																				*											
	Ostertagia ostertagi				*																											
	Brugia malayi	*	*	*	*		*	*	*	*		*	*	*		*								***	*	*		**		*		
	Heterorhabditis bacteriophora				*																											

Suppl. Table 1 - Kloepper et al.