

10 20 30 40 50 60 70 80 90

mouseDroshaIIIA RLGQDDPTPSRINHNRRDEFLGDVAVFELTSSVHLYYLFPSSLEEGSLATYRRTAIVQNHILAMLAKKQLEDRFLMYAHGPDLCRESDLRHAM  
 chimpDroshaIIIA RLGQDDPTPSRINHNRRDEFLGDVAVFELTSSVHLYYLFPSSLEEGSLATYRRTAIVQNHILAMLAKKQLEDRFLMYAHGPDLCRESDLRHAM  
 dogDroshaIIIA RLGQDDPTPSRINHNRRDEFLGDVAVFELTSSVHLYYLFPSSLEEGSLATYRRTAIVQNHILAMLAKKQLEDRFLMYAHGPDLCRESDLRHAM  
 cattleDroshaIIIA RLGQDDPTPSRINHNRRDEFLGDVAVFELTSSVHLYYLFPSSLEEGSLATYRRTAIVQNHILAMLAKKQLEDRFLMYAHGPDLCRESDLRHAM  
 humanDroshaIIIA RLGQDDPTPSRINHNRRDEFLGDVAVFELTSSVHLYYLFPSSLEEGSLATYRRTAIVQNHILAMLAKKQLEDRFLMYAHGPDLCRESDLRHAM  
 ratDroshaIIIA RLGQDDPTPSRINHNRRDEFLGDVAVFELTSSVHLYYLFPSSLEEGSLATYRRTAIVQNHILAMLAKKQLEDRFLMYAHGPDLCRESDLRHAM  
 chickenDroshaIIIA RLGQDDPAPSRIINHNRRDEFLGDVAVFELTSSVHLYYLFPSSLEEGSLATYRRTAIVQNHILAMLAKKQLEDRFLMYAHGPDLCRESDLRHAM  
 ZfishDroshaIIIA RLGQDDPSPSRINHNRRDEFLGDVAVFELTSSVHLHLPSSLEEGSLATYRRTAIVQNHILAMLAKKQLEDRFLMYAHGPDLCRESDLRHAM  
 DmDroshaIIIA RFGKEHETVSNITNRRDEFLGDVAVFELSSVHLFFMFPSSLEEGSLATYRRTAIVQNHILAMLAKKQLLEEFLMYAHGSDLCHELELRHAM  
 honeybeeDroshaIIIA NHRHYRTESSIAINRRDEFLGDVAVFELTSSVHLHFMFPSSLEEGSLATYRRTAIVQNHILAVLAKKRLDEEYMLYAHGSDLCHELELRHAM  
 CeDroshaIIIA NIMKQTSGGEPILNRRDEFLGDVAVFELTSSVHLHFLMTHHFEGLSLATYRRTAIVQNRNLTALAKNCRIDDEMLQYSHGADLINVAEFKHAL  
 cattleDroshaIIIB TLRTVGFNHLTLGHNRRDEFLGDSIMQLVATEYLFIRFPDHHHEGLLTLRSLSSIVNRTQAKVAEELGMQEYAIINDKTKRPVALRTK-TL  
 dogDroshaIIIB TLRTVGFNHLTLGHNRRDEFLGDSIMQLVATEYLFIRFPDHHHEGLLTLRSLSSIVNRTQAKVAEELGMQEYAIINDKTKRPVALRTK-TL  
 mouseDroshaIIIB TLRTVGFNHLTLGHNRRDEFLGDSIMQLVATEYLFIRFPDHHHEGLLTLRSLSSIVNRTQAKVAEELGMQEYAIINDKTKRPVALRTK-TL  
 chimpDroshaIIIB TLRTVGFNHLTLGHNRRDEFLGDSIMQLVATEYLFIRFPDHHHEGLLTLRSLSSIVNRTQAKVAEELGMQEYAIINDKTKRPVALRTK-TL  
 ratDroshaIIIB TLRTVGFNHLTLGHNRRDEFLGDSIMQLVATEYLFIRFPDHHHEGLLTLRSLSSIVNRTQAKVAEELGMQEYAIINDKTKRPVALRTK-TL  
 humanDroshaIIIB TLRTVGFNHLTLGHNRRDEFLGDSIMQLVATEYLFIRFPDHHHEGLLTLRSLSSIVNRTQAKVAEELGMQEYAIINDKTKRPVALRTK-TL  
 chickenDroshaIIIB TLRTVGFNHLTLGHNRRDEFLGDSIMQLVATEYLFIRFPDHHHEGLLTLRSLSSIVNRTQAKVAEELGMQEYAIINDKTKRPVALRTK-TL  
 ZfishDroshaIIIB TLRTVGFNHLTLGHNRRDEFLGDSIMQLVATEYLFIRFPDHHHEGLLTLRSLSSIVNRTQAKVAEELGMQEYAIINDKTKRPVALRTK-TL  
 DmDroshaIIIB TDRSIGFTHLTLGSHRRDEFLGDTVLQLIVSEYLYKYPDHHHEGLLTLRSLSSIVNRTQAVVCDLGMPKYALYANP---KADLKTK-DR  
 honeybeeDroshaIIIB TDRSIGYTNLTLGSHRRDEFLGDTVLQLIVSEYLYKYPDHHHEGLLTLRSLSSIVNRTQAVVCDLGMPTQYALYGNP---KABLKTK-DR  
 CeDroshaIIIB TRRNIPNNDLTKGHNRRDEFLGDSVLQLIVSDFLRRRPEYHHEGSLRSLSSIVNRTQAVVCDLGMPTPEVKIAP--YKPELKLK-DK

100 110 120 130

mouseDroshaIIIA NNCFEALIGAVVLEGSLEEAKQLFGRLLN-DPDLREVWL  
 chimpDroshaIIIA NNCFEALIGAVVLEGSLEEAKQLFGRLLN-DPDLREVWL  
 dogDroshaIIIA NNCFEALIGAVVLEGSLEEAKQLFGRLLN-DPDLREVWL  
 cattleDroshaIIIA NNCFEALIGAVVLEGSLEEAKQLFGRLLN-DPDLREVWL  
 humanDroshaIIIA NNCFEALIGAVVLEGSLEEAKQLFGRLLN-DPDLREVWL  
 ratDroshaIIIA NNCFEALIGAVVLEGTLEEAKQLFGRLLN-DPDLREVWL  
 chickenDroshaIIIA NNCFEALIGAVVLEGSLEEAKQLFGRLLN-DKDLREVWL  
 ZfishDroshaIIIA NNCFEALIGAVVLEGGLEEAKQLFGRLLN-TEDMREVWL  
 DmDroshaIIIA NNCFEALMGVLLLDGGIIVKVADEVFTDALRQDEKLLSIWK  
 honeybeeDroshaIIIA NNCFEALMGSLFLDGGIIVADRVFGETLKDDEEDLAKVWV  
 CeDroshaIIIA ANAFBVMARHLDGGGLAPCDVIFSKAMYGHQFVLKEKW  
 cattleDroshaIIIB ADLLESFIAALYIDKDLEYVHTFMNVCSEPRLKEFILNQD  
 dogDroshaIIIB ADLLESFIAALYIDKDLEYVHTFMNVCSEPRLKEFILNQD  
 mouseDroshaIIIB ADLLESFIAALYIDKDLEYVHTFMNVCSEPRLKEFILNQD  
 chimpDroshaIIIB ADLLESFIAALYIDKDLEYVHTFMNVCSEPRLKEFILNQD  
 ratDroshaIIIB ADLLESFIAALYIDKDLEYVHTFMNVCSEPRLKEFILNQD  
 humanDroshaIIIB ADLLESFIAALYIDKDLEYVHTFMNVCSEPRLKEFILNQD  
 chickenDroshaIIIB ADLLESFIAALYIDKDLEYVHTFMNVCSEPRLKEFILNQD  
 ZfishDroshaIIIB ADLLESFIAALYIDKLEFVHTFMNVCSEPRLKEFILNQD  
 DmDroshaIIIB ADLLEAFILGALYVDKGLLYCEQFCHVCLPRQLQFIMNQD  
 honeybeeDroshaIIIB ADLLEAFILGALYVDKGLLEYCRVFCVCEPRLQDFIMNQD  
 CeDroshaIIIB ADLVSAFICGLYVDKRGIEHCRAFRIRVFCPRLKHFIETSEK

corresponding to  
K1790 in mouse Dicer

established catalytic positions

