

The Sec24D primary structure is highly conserved during evolution

<i>H. sapiens</i>	MSQQGYVATPPYSQFQPGIG-----LSPPHYGHYGDPS--HTASPTGMMKPAAGPLG	49
<i>M. musculus</i>	MSQQGYVATPPYSQSQPGMG-----ISPPHYGHYGDPS--HASSPPGVMKPLGSPS-	48
<i>T. rubripes</i>	MSQQGYVAAPPYSQAQPRMGGYQGGFGPFAQPMNGHYGGPPQAFTAPPPTGMMKPP----	56
<i>D. rerio</i>	MSQQGYVATPPYSQAQAGMGGYAAGFGNPPQSHYGHYAGSPTQGYSAAPPPTGVLKPP----	56
	*****:*****.*.*:*	
	. . . * * * . * . . . : . * . : * *	
<i>H. sapiens</i>	ATATRGMLPPGPPPPGPHQFQNGAHATGHPQRFPGPPPVNNVASSHAPYQPSAQSSYP	109
<i>M. musculus</i>	-AAPSGMLPPGPPPPGPHQFQNGAHTGHPQRFPGPPPVNSVAPSYASGQTLPPQSSYP	107
<i>T. rubripes</i>	-VSS-GAMPP---PP--SQFSPN-MQHNG--PQSY-----AASAAQYQPP---YNSMA	97
<i>D. rerio</i>	-ASSPSGMPP---PPVSSQYGTN-IQONGAHPSFPPPVSSSPSMSPYQPPPTAFHSM	111
 : * * * * * : * * * * * : * * * * * : * * * * * : * * * * *	
<i>H. sapiens</i>	GPISTSSVTQLGSQLSAMQINSYSGMAPPSPGPPGLSATSLQTTPRPPQPSILQPGSQ	169
<i>M. musculus</i>	GPGSTSSVTQLGSQLSAMQINSYSGMAPPSPGPPGLSATSLQTTPRPPQPSILQPGHQ	167
<i>T. rubripes</i>	S-QAPPPTQHLTNQMSAMNLSYVMGQP---QMPGPGQSP--QMSPPQSPSASMPMGPP	151
<i>D. rerio</i>	--QAPPPTQHLTNQMSAMNIAGYQRPV---QSPNSAPA--HFQTSPP---PVMGHPP	161
	: : * * * * * : * * * * * : * * * * *	
<i>H. sapiens</i>	VLPPTTLNNGPASPPLPLMYRPDGLSGPPPPNAQYQPPPLPGQTLGAGYPPQAN---	226
<i>M. musculus</i>	VPPPTTLNNGPASPMSPPTHRDGLGPAPLNAQYQPPPLPGQTLGAGYPPQATN---	225
<i>T. rubripes</i>	MAGPPMAGPPMAG-PPMAGMG-RP--FGPSPPGGGFPQSPGTAVPPGYPPQPGQ---	204
<i>D. rerio</i>	LSPPGQPPSPLGSPPMATMGSM--APPMGMSGPPGPVVHQP-PHGPQYPPQPGSPIA	218
	: * * * * * : * * * * * : * * * * * : * * * * * : * * * * *	
<i>H. sapiens</i>	--SGPQMGAGQLS-----YPGGFPGGPAQMAP-PQPQKLLDPSIPSPQIWIENDRAS	277
<i>M. musculus</i>	--YGPQMGAGQLS-----YPGGFPGGPAQMAPPAPQLQKLLDPSIPSPQIWIENDRAT	277
<i>T. rubripes</i>	--FGGLIAGPQGG-----MPGAFPGAPGGLAGP---PQKLLDPSIPSTNRCVWQTQXD	253
<i>D. rerio</i>	GPYGAQMGAGPQMGAPQTGAFPGGFAQMAPG---PQKLLDPSIPSTQMIADDAK	275
	* : * * * * * : * * * * * : * * * * * : * * * * * : * * * * *	
<i>H. sapiens</i>	RG-----GQVYATNTRGQIPPLVTTDCMIQDQGNASPRFIRCTTYCFPCTSDMAKQAO	330
<i>M. musculus</i>	RG-----GQVYATNTRGQVPPLVTTTCVQDQGHSSPRYIRCTTYCFPCTSDMAKQAO	330
<i>T. rubripes</i>	RGRPDQNTGGRSKTNNIRGQVPPLVTTDFVQDQGNASPRYMRCTAYSLEPTADLAKQCO	313
<i>D. rerio</i>	RG-----GQVYATNTRGQVPPLVTTNFTVQDQGNASPRFMRCTTYSFPCTADLAKQCK	328
	** * : * * * * * : * * * * * : * * * * * : * * * * * : * * * * *	
<i>H. sapiens</i>	IPLAAVIKPFATIPSNESPLYLVNHGSEGPVRCNRCKAYMCPFMQFIEGGRRYQCGFCNC	390
<i>M. musculus</i>	IPLAAVIKPFADIPNETPLYLVNHGSEGPVRCNRCKAYMCPFMQFIEGGRRYQCGFCSC	390
<i>T. rubripes</i>	VPLAATIIPLAALPKNEAPLYLVNHGETGPIRCNRCKAYMCPYMQFTDGGRRYQCSFCNC	373
<i>D. rerio</i>	VPLAAIKPFATVPKNETPLYLVNHGETGPIRCNRCKAYMCPYMQFIDGGRRYQCSFCSC	388
	: * * * * * : * * * * * : * * * * * : * * * * * : * * * * *	
<i>H. sapiens</i>	VNDVPPFYFQHLDHIGRRLDHYEKPELSLGSYEVATLDYCRKSKPPNPPAFIFMIDVSY	450
<i>M. musculus</i>	VNEVPPFYFQHLDHIGRRLDHYEKPELSLGSYEVATLDYCRKNKPPNPPAFIFMIDVSY	450
<i>T. rubripes</i>	VNEVPVFFYFQHLDMGRRVDFYERPELSLGSYEVATLDYCKNNKPPNPPAYIFMIDVSY	433
<i>D. rerio</i>	VNEVPVHYFQHLDMGRRMDLYERPELSLGSYEVATLDYCKNNKPPNPPAYIFMIDVSY	448
	* * * * * : * * * * * : * * * * * : * * * * * : * * * * *	
<i>H. sapiens</i>	SNIKNGLVKLICEELKTMLEKIPKEEETSARVGFITYNKVLHFFNVKSNLAQPQMMV	510
<i>M. musculus</i>	SNIKNGLVKLICEELKTKRLPKKEEETSARVGFITYNKVLHFFNVKSNLAQPQMMV	510
<i>T. rubripes</i>	NNVKSGLVKLICEELKTLQNLPRDGDASAIKVGFTYNNKILHFNKVSALAQPMV	493
<i>D. rerio</i>	NNIKSGLVRLICEELKTLDRLPKEEAGESSIKVGFVYNNKILHFNKVSALAQPMV	508
	: * * * * * : * * * * * : * * * * * : * * * * * : * * * * *	
<i>H. sapiens</i>	VTDVGEVFPVLLDGLFLVNYQESQSVIHNLDDQIPDMFADSNENETVFAVVIQAGMEALKA	570
<i>M. musculus</i>	VTDVGEVFPVLLDGLFLVNYEESQSVIHNLDDQIPDMFADSNENETVFAVVIQAGMEALKA	570
<i>T. rubripes</i>	VSDTAEMFVPLQDGLFLVSYQESRAVISNLLDQIPDMFADTGESVETVFAVVIQAGIEAFKA	553
<i>D. rerio</i>	VSDTAEMFVPLDGLFLVNFQESRAVINLLDQIPDMFADTNESETVFAVVIQAGLEALKA	568
	: * * * * * : * * * * * : * * * * * : * * * * * : * * * * *	
<i>H. sapiens</i>	ADCPGKLFIFHSSLPTAEAPGKLNRRDDKLVNTDKEKILFQPTNVYDSLAKDCVAHGC	630
<i>M. musculus</i>	AECPGKLFIFHSSLPTAEAPGKLNRRDDKLVNTDKEKILFQPTAVYESLAKDCVANSC	630
<i>T. rubripes</i>	AQCSGKLFIFHSSMPTAEAPGKLNRRDDKLVNTDKEKTLFQPKGVYEQLSKCVAGQC	613
<i>D. rerio</i>	AECGKLFIFHSSIPTAEAPGKLNRRDDKLVNTDKEKTLFQPKGVYEQLTDCVAGQC	628
	: * * * * * : * * * * * : * * * * * : * * * * * : * * * * *	
<i>H. sapiens</i>	SVTLFLFPPSYVDVASLGLVPLTGGTLYKYNFQMHLDROQFLNDRNDIEKIGFDAI	690
<i>M. musculus</i>	SVTLFLFPPSYVDVASLGLVPLTGGTLYKYNFQIHSQRSFLTLNDRNDIEKIGFDAI	690
<i>T. rubripes</i>	CVDLFLFPPSYVDVSTMGDVPTGGSVYKYSNFQVDVDEHFLRDLRNDVQKRVGFDAI	673

<i>D. rerio</i>	CVDLFLFPNQYVDIATMGDVPSSHGGSIYKYSNFQVEVNGQQFLSDLSRDVEKSIQFDAL	687

<i>H. sapiens</i>	MRVRTSTGFRATDFFGGILMNNSTDVEMAAIDCDKAVTVEFKHDDKLSSEDSGALIQCAVL	750
<i>M. musculus</i>	MRVRTSTGFRATDFFGGIFMNNSTDVEMAAIDCDKAVTVEFKHDDKLSSEDSGALIQCAVL	750
<i>T. rubripes</i>	MRVRTSTGFRATDFFGAIFMNNSTDVEMAAVDCDKAVTVELKHDDALNEEAGALLQCALL	733
<i>D. rerio</i>	MRVRTGTFGRATDFFGAVYMNNSTDVEMAAVDCDKAVTVEFKHDDTLEESGAVMQCALL	748

<i>H. sapiens</i>	YTTISGQRRRLRIHNLGLNCSSQLADLYKSCETDALINFFAKSAFKAVLHQPLKVIREILV	810
<i>M. musculus</i>	YTTISGQRRRLRIHNLALNCSTQLADLYKSCETDALINFFAKSAFKAVLNQPLKAIREILV	810
<i>T. rubripes</i>	YTTIGGQRRRLRVHNLGLNCSSQLSELYKSCETDALINFFAKSAYRAILNQPLKSVREILV	793
<i>D. rerio</i>	YTTIGGQRRRLRIHNLGLNCSSQLSELYKSCETDALINFFAKSAYRAMLNQPMKTVREILV	808

<i>H. sapiens</i>	NQTAHMLACYRKNCASPSAASQLILPDSMKVLPVYMNCLLKNCVLLSRPEISDTERAYQR	870
<i>M. musculus</i>	NQTAHMLACYRKHCCASPSAASQLILPDSMKVLPVYMNCLLKNCVLLSRSEISDTERAYQR	870
<i>T. rubripes</i>	NQTAHMLACYRKNCASPSAASQLILPDAMKVFVYMNCLLKNCVLLSRSEISDTERAYQR	853
<i>D. rerio</i>	NQTAHMLACYRKNCASPSAVSQLILPDAMKVFVYMNCLLKNCVLLSRSEISDTERAYQR	868

<i>H. sapiens</i>	QLVMTMGVADSQFFYPQLLPIHTLDVKSTMLPAAVRCSESRLESEGIFFLANGLHMFLW	930
<i>M. musculus</i>	QLVMTMGVADSQFFYPQLLPIHTLDVKSAAALPAVRCSESRLESEGIFFLANGLHMFLW	930
<i>T. rubripes</i>	LAVMAMGVEETQLLLYPRLIPLHNDVGAEPPTPLRCSEERLADAGVFFLENGHAMFLW	913
<i>D. rerio</i>	FMVNAMGVEETQVLLYPRLIPLHNDVGSSESLPAVRCSEERLNESEGMFFLENGLSMFLW	928

<i>H. sapiens</i>	LGVSSPPELIQGI FNVPSFAHINTDMLLPEVGNPYSQQLRMIMGIIQKRPYSMKLTIV	988
<i>M. musculus</i>	FGVSSPPELIQGI FNVPSFAHINTDMASLPEVGSFHSQQLRMIMNIQKRPYSMKLIVV	990
<i>T. rubripes</i>	LGOASPPDLIQNL FNVPSLAHLQAHMSVLPVLDNPLSKKVRGVIGDLEKRPYSMKLQIV	971
<i>D. rerio</i>	LGOACSPDLIQNL FNVPSFGHLPTEGTSLPVLDNAHSRKLHSIIRISQQRASMKLLIV	988

<i>H. sapiens</i>	KQREQPEMVFQRQFLVEDKGLYGGSSYVDFLCCVHKEICQLLN	1032
<i>M. musculus</i>	KQREQREMAFRQFLVEDKGLYGGSSYVDFLCCVHKEICQLLN	1032
<i>T. rubripes</i>	RQKDKPEMLFRQFLVEDKGLHGGASYMDFLCYIHREVRQLL-	1014
<i>D. rerio</i>	KQKDRAEMSFRQLLVEDKGLHGGASYMDFLCFVHREIRQLLT	1030

Sarmah et al., Figure S1