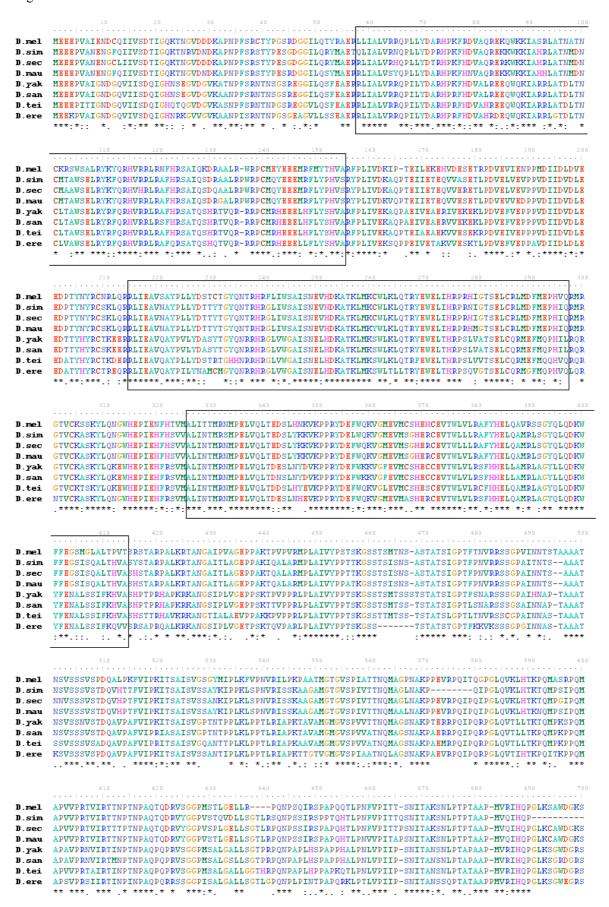
Figure S2



```
NSAPFSKPIRSLLTTSSP-AAAPIVATAEPARAKIIPPKPK---LPATTLVNPKKYOPIVPVAVLPTAATRMAKPATEP-ATELPVTTPPIATGOTTRVI
      ----FSKPMGSLSTTSSP-AAAPIAPPGEPARAKTIPTKSK---LPATTLANPKKYOPIVPAAVP--TATRMAKPAAEP-ATELPVPTPPTATGOKTRVI
D sim
      NSVPFSKPMCSLSTTSSP-AAAPIAPT<mark>CE</mark>PARAKTIPTKSK---LPATTLCNPKKYQPIVPAAVP--TATRMAKPAAEP-ATELLVPTPPTATCGTTRDI
D.sec
D.mau
      NSVPFSKSMGSLPSTSSP-AAAPIAPTG<mark>E</mark>PARAKTIPTKSK---LPATTL<mark>G</mark>NPKKYQPIVPAAVP--TATRMAKPAT<mark>E</mark>P-ATELPVPTPPIATGQTTRVI
D.yak
      ISSPASKSL<mark>G</mark>SPAATTVSAAAAPIAPTEEPARAKTSQTMSKSSAVPATTANYTKKYRPIVPAVPT---AIRMTKPAAEPPATELPVPPPPPIGTEQTVRVV
      ISSPASKSMCSPAATSVSAAAAPIAPTEEPARAKTSQTM-----PATTANYPKKYRPIVPAVPT---AIRMTKPAGEPPATELPVPP------VRVV
D.san
      NSVPASKPMGSLAATSAP-AAAPVAPTEEPARAKTSQTKSKLNAVPATIADYTKKYRPIVPAVPA---AIRTTKPAAET------VPPPLIGAGQTGRVV
D.tei
      NSSPASKS<mark>MG</mark>SLAATSSP-PAAPIAPA<mark>EE</mark>PARAKTSVIKSKVNAVPATTA<mark>D</mark>YNKKYRPIVPAAPT---AKATTKSATQP-AI<mark>E</mark>LSVPSPPIRT<mark>GH</mark>TVRAI
D.ere
                                                                 * :*.* :.
          **.: * :*: . .***:... *****
                                             ***
                                                    ***:****..
      n mel
      RKTPLFPKSATQAASDK------YATIRGTLASQA
D.sim
      D.sec
      RKTPLFPKSATQAASDK------YATIRGTLASQA
      YKAPLLPKSATQAAAATQAASATQAASATQAASTTQATSATQAASTTSATQAASATQAVSATQTASATQAASATQAASATSATQAASVTSATRGILASQA
D. yak
      D. san
D.tei
      QKTPLFPKSTAQAASAT-----SATQCTLASQA
       *:.*:..::* *. .
      910 920 930 940 950 960 970 980
D.mel
      KAVGAA-----ISAPVVRPAKLPTVAKATTASOSDIKATAAASATLGSOPENLPLGNITVCLHESDTTGNELOVWCGNOGTRFNLNMIRTTTLIREV
      KSVCAALETVDMDNISAPVATPAKLPTVAKATTASOSAKEATAAGSASLCSOPEOLPLCDITVCLHENATTCNVLOIWCCNOATRYNLNMYRTATLIREV
D.sim
      KSVGAALETVDMDNISAPVATPAKLPTVPKATTASQPAKEATAAGSASLGSQPENLPLGDITVCLHENATTGNVLQIWCCNQATRYNLNMVRTATLIREV
D.sec
      KSVGAALETLDMDNISAPVATPAKLPTVAKATTASQSAKEATAAGSASLGSQPEKLPLGDITVCLQENPTTGNVLQIWCCNQDTRYNLNMVRTATLIREV
D.mau
      RTATAA---IDISDKPAPVDAPAKLPAVAKATPVSQSDKEASAS---LGSQPEKLPGGDISVRWQEYAATGNVLQIWGGKYPTRYNLNMVRTATLIREV
RTATAA---VDISDKPAPVDAPVKLPAVAKATPVSQSDKEASAS---LGSQPEKLPGGDISVRWQEYAATGNVLQIWGGKYPTRYNLNMVRTATLIREV
D. yak
D.san
      RTATAA---V<mark>D</mark>ISDKPAPVATPVKFPTVAKATAVSQSDKEASAS----LGSQPEQLPVGDITVCLQENVATGNLLQIWCGNQPTRFNLNMVRTATLIREV
D.tei
      K------VDIS---APVAPPVKLPTIAAATTASQADKEA------LPEPLPVCDITVRLLENVATCNILQICCGNQATRFNLNMVRTATLIREV
                                                   ** ** *:*:* * :*** **: * : **:***:**:**
                    *** *.*:*::. **..**. :*
               0 1020 1030 1040 1050 1060 1070 1080
      MAVPOLHKEDPOLAAKCVEEWHFIAKKEHMPERALBACWKELAANMSVEPKIAPMSELMEPEKYSEKVWEKSNELECKEDEIALKYOWLNHKNVLEEVIE
D.mel
      MAVPQLHNDNPQLADKCVEFWQAIAKKFHMPEEALRACWQFLASNMSVFPMIAPMSELMRPFKASVKVWEKSNRLFCKFDEIALKYQWLKHKDVLDAVIR
D.sim
      mavpqlhn<mark>d</mark>npqlaak<mark>cve</mark>fwqaiakkfhmp<mark>ee</mark>alracwtflasnmsvfpmiapmselmrpfkasvkvw<mark>e</mark>ksnrlfgkfdeialkyqwlkekdvlfavtr
D.sec
D.mau
      MAVPQLHNDNPQLAARCVEFWQATARKFHMPEEAVRACWKFLASNMSVFPMTAPMSELMRPFKASVKVWEKSNRLFCKFDETALKYQWLKHKDVLDAVTR
      MAVPOLHBRDPOLAAKCDRFWRVIAKKFHMPRRALBACWKFLADNMSVFPKIAPMSRLMRPFKASVRVWEKSHRLFSKFDRIALKYOWMNHKDILBDVIR
D. yak
      MAVPQLHRED PQLAAKCDEFWKVIAKKFHMPEEALRVCWKFLADNMSVFPKIAPMSELMRPFKASVRVWEKSHRLFSKFDEIALKYQWMNHKDILEDVIR
D.san
      MAVPOLHKED PLLATKODE FUKVIAKKEHMPEEAL RACUKELADNMSVEPMIAPMSELMRPERASVKVWEKSHRLESKEDEIARKYKUMNHKDVLEDVIR
      MAVPOLHKEDPLLAAKCDEFWKVIAKKEHLPEEALRACWKELADNMSVEPMIAPMSDLMEPEKASVKVWEKSHELESKEDEIARKYOWLNHKDLLEEVIR
D.ere
      FFAKYRYLYCDLBBPBPGRDADAPPOLTNORKORYMBRABLKEPNLNHRDTMSMEKFAFRTYLDDLRBGTDNPMPONMMOALROLBELVNVBYHPLRPYY
n mel
      FFAKHEHLYSDLRKPRPGEDAQASPQLTNQEKQEVWREARLKFPNLNHRDIWSMFKFAFRTYLDDLERGIENPWPHNWWQALEQLRFLWNWRYHPLEPYY
D.sim
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D. sec
D.mau
      FFAKHRHLYCDLRKPRPGRDAGAPPOLTNLEKGRYMRRARLKFPNLNHRDIMSMFKFAFRTYLDDLRRGIRNPWPHNUMGALRGLRFLYNVRYHPLRPYY
n vak
      LEAKHRHLYMENDRODGENAGTOHHETDLEKGEVMDEADTKYDNLMHDDTMSMEKEAEDTYMEDLEDGTENDMOGNIMIGTLEGLEELANVDYHDLEDYY
      LFAKHEHLYWEMRKPRPGEMTQIPHHFTDLEKQEVWRDARIKYPNLNHRDIWSMFKFAFRTYMEDLERGIENPWPQNWWQTLEQLRFLANVRYHPLEPYY
D.san
      HFAKHEHLYWEMRKPRPGEKTQAPHHFTDQEKQEVWREARAKFPNLNHRDIWSMFKFAFRTYMEDLERGVENPWPQTWWQALEQLRFLANVRYHPLEPYY
D.ere
      HFGKYEHLYWEMRKPRPGEETOAPPOLTDLEKODVWREARIKYPNLNHRDIWSMFMFAFRTYMEDLERGVENPWPONWWOALEOLRFLANVRYHPLEPYY
       0 1230 1240 1250 1260 1270 1280 1290 1:
      YIVHNRMSEEVKRCKMHEALTSSDHIDKTKFTPSKLLTGFSKEPRP---WETEEAKRLLTGKLNSVRSTETLTQIA---------
D.mel
      YIVHNKIS<mark>bevkrCsmyba</mark>ltssdptdktksaptsllt<mark>g</mark>ltkbpmp---wbtbbakrlltgklnsvrsvatltqitpa-----------------
D.sim
      YIVHNKMSEEVKRCSMYEALTSSDPTDKTKSAPTSLLTGLTKEPMP---WETEEAKRLLTGKLNSVRSVATLTQIT-----------------
      YIVHNKMSEEVKRCSMYEALTSSDPTDKTKSAPTSLLTGLTKEPMP---WETEEAKRLLTGKLNSVRSVATLTQISPA--------------------
n mau
      YIVHNKISEEVKRCSMYEALMSADPTDKVKPTPAILLKRLTKTPMP---WETEEAKRLLTCKLDCLRSSESTSQTATPPASA----PPPASSSASASAPP
D. vak
      YIVHNKISEEVKRCSMYEALMSADPTDKVKPTPAILLKRLTKTPMPWETWETEEAKRLLTGKLDGLRSSESTSQTAIPPASASAAPPPAPASASASASASA
D.san
      D.tei
n ere
                            ** * :*: **. ::: . *
                ***.*:*** *:*
      1310 1320 1330 1340 1350 1360 1370 1380
      -----papalalapdaqpipvpdcvsvskktseskpasnanvkshkdknistaqkrptparsvtcnnlspieapelckklrsqpnsfe
D.mel
      -----papapasapdaqpipvpdgvsvpketsesepasnatvkshkdknistarkrstparndtcpnlspieafelckqlrsqpntye
D.sim
D.sec
      -----papapasap<mark>d</mark>aqpipvpdcvsvpketseskpasnatvkshkdknistarkrwtparnvtchnlspieafelckklrsqpntye
n mau
      ASAPPPAP-----APTPAPAPAPTAQSIPVPDCVSVCTKTPESKSAPNTNVKSHKCKKSSSAQKRLSPAKTVTCN-LPPIEAFELTKVLRRQPHTFE
D. yak
      ASAPPPVPASAPPLVSAPTPAPAPAPTAQSIPVP<mark>DG</mark>VSVCTKTPESKPAPNTDVKSHKGKKSSSAQKRLSPAKTVPCN-LPPIRAFELTKVLRRQPHTFE
D.san
      -----Apapapaptaopipypddvsvstktpeskoapsatvkshk---sstaokroslaktvtcn-lppieafeltkvlrsophtfe
D.tei
      -----Tapavaraaoptsvppcasvstktpeskpapnatvkshkatnsssaokplpltksatcn-lppleafeltkvlprophtfe
n ere
                      .* * * **. .***. ** .:*.**: *..: ****
                                                           *:*:** . ::. .* *.****** * **
```

	1418	1420	1430	1440	1450	1460	1470	1480	1490	1500
					1 '					
D.mel	RASTLDKRAAWVRVSH				7				_	
D.sim	RASTLDKRTAWVRVSH				7				1	
D.sec	QASTLDKRTAWVRVSH	KELNATVTDC	RLGLQYALRE	MRNLKIADPNN	QCTMGHKY:	LHHMSEIYKQVI	KPNAQLTIRT	PQQLNQLNKS	LAKNT-Q E VKP	QEFL
D.mau	RASTLDKRTAWVRVSH	KELNATVTDC	RLGLQYALRE	MRNLKIADPNN	QCTMGHKY:	LHHMSEIYKQVI	KPNAQLTVRT	PQQLNQLNKS	LEKNT-QEVKP	QEFL
D. yak	RASTINKRTAWVRVSN	NELNATVIEC	RLGLQYALRE	MRNLKIADPMN	OCAMERKY:	FHHMSEIYKQVI	KPNGQLIVRT	POOLNOLNOS	PABVTABBVKP	RGFL
D.san	RASTINKRTAWVRVSN	NELNATVIEC	RLGLOYALRE	MRNLKIADPMN	CAMARKY	FHHMSKIYKOVI	KPNGOLIVRT	POOLNOLNOS	PARVTAREVKP	RGFL
D.tei	OASTIDKRTAWVRVSH				7	_			1	
D.ere	RASTIDKRTAWVRVSH									
D. ELE	:***::**:***				4					-++
	putative BESS									
	1510	1520	1530	1540	1550					
D.mel	PEINLSTCSPDLVVK	NWAYAVGNLS	TASQDTLLGR	MTQLFSKYAK-	VNPPPP					
D.sim	PEINLSTCSPDLVVK	NWSYAVGNLS	TASQDALLGR	MTQLFSKYAKK	ANPPPP					
D.sec	PEINFSTCSPDLVVK	NWTYAVGNLS	TASQDALLGR	MTELFSKYAKK	VNPPPP					
D.mau	PEINLSTCSPDLVVK	WAYAVÇNLS	TASQDALLGR	MTQLFSKYAKK	VNPPPP					
D. yak	PRINVTTCSPELVVK	MAHAAGNLS	APNODILIVE	LTOVESKYAKK	VNPTAP					
D.san	PEINVITCSPELVVK	IMAHAAGNI.S	APSODILEVE	T.TOWESKYARK	WMDTAD					
D.tei	PRINLTTCSPDLVVK									
	PRINLTTCSPDLAWK									
D.ere										
	****.:****:****	**::*.***	**:*: *	:*::*****	.: *					