CLUSTAL X (1.83) MULTIPLE SEQUENCE ALIGNMENT

File: K:castor and pollux.ps **Date: Thu Jul 31 10:28:04 2008**


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           . ::*:.** :*  :*  **** :.** :*:.:*  **::*: *.  .. ..** ***::**:*.**   * * ::*:::
Os-POLLUX  VPLKKRIAYKVDVFFSGHPYAKLLALLLATIILIASGGIALYVVSGSGFLEALWLSWTFVADSGNHADQVGLGPRIVSVS   80
Zm-POLLUX  VPLKKRIAYKVDVFFSGHPYAKLLALLLATIILIALGGIALYVVSGSGFLEALWLSWTFVADSGNHADQIGLGPRIVSVS   80
Vv-POLLUX  VPLKKRIAYMVDVCFSVYPYAKLLALLFATIFLIGFGGLALYAVSDGSLAEALWLSWTFVADSGNHADRVGTGQRIVSVS   80
Pt-POLLUX  APLKKRVAYMVDVCFSVYPYAKLLALLFATIFLIGFGGLALYAVSDGSLAEALWLSWTFVADSGNHADRVGTGPRIVSVS   80
  Mt-DMI1  VPLKKRVAYMVDVFFSIYPYAKLLALLCATLFLIAFGGLALYAVTGGSMAEALWHSWTYVADAGNHAETEGTGQRIVSVS   80
  Ps-SYM8  VPLKKRVAYMVDVFFSIYPYAKLLALLFATLFLIAFGGLALYAVTGGSMAEALWHSWTYVADAGNHAETEGMGQRIVSVS   80
Lj-POLLUX  VPLKKRIAYMLDVFFSIYPYAKLLALLFATLFLIGFGGLALYAVTGGSLAEALWHSWTYVADSGNHAETQGTGQRVVSVS   80
Gm-POLLUX  VPLKKRVAYIVDVFFSVYPYAKLLALLFATLFLIGFGGLALYAVTGGSFAEALWHSWTYVADSGNHAETEGTGQRIVSVS   80
At5g49960  VPLKKRLAYSLDVCFSVYPYAKLLALLLATVVLIVYGGLALYAVSDCGVDEALWLSWTFVADSGSHADRVGVGARIVSVA   80
Os-CASTOR  VPINKRLAYRVDIFLSLQPYAKPLVLLVATLLLIGLGGLALYGVNDDSLLDCLWLSWTFVADSGNHANAEGFGPKLVSVS   80
Zm-CASTOR  VPINKRFAYRVDIFLSLHPYAKPLVLLVATLLLIALGGLALYGVTDDSLSDCLWLSWTFVADSGNHANAVGLGPKLVSVS   80
Lj-CASTOR  VSLNKQIAYRVDVFLSVYPYAKPLVLLVATLLLIFLGGLTLFGVTTEDLGHCLWLSWTYVADSGNHASSEGIGPRLVAVS   80
Gm-CASTOR  VSLNKQIAYRVDVFLSVYPYAKPLVLLVATLLLIFLGGLALFGVTTEDLAHCLWLSWTYVADSGNHASSQGIGPRLVAVS   80
Mt-CASTOR  VSLNKQIAYRLDVFLSVYPYAKPFVLLFSTLLLIFIGGFALFGVTSDDLLHCLWLSWTYVADSGNHATSQGVGPRLVALS   80
Vv-CASTOR  VSLNKQLAYQVDAFLSVHPYAKPLALLVATLLLICLGGLALFGVTVDSLADCLWLSWTYIADSGNHANSEGIGPRLVSVS   80
Pt-CASTOR  ALLNKQLAYRVDIFLSVHPYAKPLALLVATLLVICLGGLALFGVTDDNLADCLWLSWTFVADSGNHANTEGIGPRLVSVS   80
     ruler 1.......10........20........30........40........50........60........70........80
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           ** ****:** ****::*.**. .** ***:.**:* .* *:************:*:.***:*: ** :.*:**::**:**
Os-POLLUX  ISSGGMLVFATMLGLVSDAISEKVDSWRKGKSEVIEVNHILILGWSDKLGSLLKQLAIANKSIGGGVVVVLAERDKEEME  160
Zm-POLLUX  ISSGGMLVFATMLGLVSDAISEKVDSWRKGKSEVIEINHILILGWSDKLGSLLKQLAIANKSIGGGVVVVLAERDKEEME  160
Vv-POLLUX  ISSGGMLIFAMMLGLVSDAISEKVDSLRKGKSEVIERNHILILGWSDKLGSLLKQLAIANKSIGGGVVVVLAERDKEEME  160
Pt-POLLUX  ISSGGMLIFAMMLGLVSDAISEKVDSLRKGKSEVIEKNHILILGWSDKLGSLLKQLAIANKSIGGGVIVVLAERDKEEME  160
  Mt-DMI1  ISAGGMLIFAMMLGLVSDAISEKVDSLRKGKSEVIERNHVLILGWSDKLGSLLKQLAIANKSVGGGVIVVLAEKEKEEME  160
  Ps-SYM8  ISAGGMLIFAMMLGLVSDAISEKVDSLRKGKSEVIERNHVLILGWSDKLGSLLKQLAIANKSVGGGVIVVLAEKEKEEME  160
Lj-POLLUX  ISSGGMLIFAMMLGLVSDAISEKVDSLRKGKCEVIERNHILILGWSDKLGSLLKQLAIANKSVGGGVIVVLAEKEKEEME  160
Gm-POLLUX  ISSGGMLIFAMMLGLVSDAISEKVDSLRKGKSEVIEKNHILILGWSDKLGSLLKQLAIANKSVGGGVIVVLAEKEKEEME  160
At5g49960  ISAGGMLIFATMLGLISDAISKMVDSLRKGKSEVLESNHILILGWSDKLGSLLKQLAIANKSIGGGVVVVLAERDKEEME  160
Os-CASTOR  ISIGGMLVFAMMLGLVTDSISEKFDSLRKGRSEVIEQSHTLVLGWSDKLGSLLNQIAIANESLGGGTIVVMAEKDKEEME  160
Zm-CASTOR  ISIGGMLVFAMMLGLVTDSISEKFDSLRKGRSEVIEQSHTLILGWSDKLGSLLNQIAIANESLRGGTIVVMAERDKEEME  160
Lj-CASTOR  ISFGGMLIFAMMLGLVSDAISEKFDSLRKGKSEVVEQNHTLILGWSDKLGSLLNQLAIANESLGGGTIAVMAERDKEDME  160
Gm-CASTOR  ISFGGMLIFAMMLGLVSDAISEKFDSLRKGKSEVVEQNHTLILGWSDKLGSLLNQLAIANESLGGGTVAVMAERDKEEME  160
Mt-CASTOR  ISFGGMLVFAMMLGLVSDGISDKFDSLRKGKSEVVEKNHTLILGWSDKLGSLLNQLSIANESLGGGTVVVMAERDKEEME  160
Vv-CASTOR  ISFGGMLIFAMMLGLVSDAISEKLDSLRKGRSEVVEQNHTLILGWSDKLGSLLNQLSIANESLDGGIVVVLAERDKEEME  160
Pt-CASTOR  ISFGGMLIFAMMLGLVSDAISEKFDSLRKGRSEVVEQNHTLILGWSDKLGSLLNQLGIANESLGGGIVVVMAERDKEEME  160
     ruler ........90.......100.......110.......120.......130.......140.......150.......160
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           ** ::**:: **::*************:*****:**:*:**. : ***********.****:**:**  **:***:.**
Os-POLLUX  MDIGKLEFDFMGTSVICRSGSPLILADLKKVSVSKARAIIVLASDENADQSDARALRVVLSLTGVKEGLRGHVVVEMSDL  240
Zm-POLLUX  MDIAKLEFDFMGTSVICRSGSPLILADLKKVSVSKARAIIVLASDENADQSDARALRVVLSLTGVKEGLRGHVVVEMSDL  240
Vv-POLLUX  MDIAKLEFDFMGTSVICRSGSPLILADLKKVSVSKARAIIVLASDENADQSDARALRVVLSLTGVKEGLKGHVVVEMSDL  240
Pt-POLLUX  MDIAKLEFDFMGTSVICRSGSPLILADLKKVSVSKARAIIVLASDENADQSDARALRVVLSLTGVKEGLRGHVVVEMSDL  240
  Mt-DMI1  MDIAKLEFDFMGTSVICRSGSPLILADLKKVSVSKARAIIVLAADENADQSDARALRVVLSLAGVKEGLRGHVVVEMSDL  240
  Ps-SYM8  MDIAKLEFDFMGTSVICRSGSPLILADLKKVSVSKARAIIVLASDENADQSDARALRVVLSLTGVKEGLRGHVVVEMSDL  240
Lj-POLLUX  MDITKLEFDFMGTSVICRSGSPLILADLKKVSVSKARAIIVLASDENADQSDARALRVVLSLTGVKEGLRGHVVVEMSDL  240
Gm-POLLUX  MDIAKLEFDFMGTSVICRSGSPLILADLKKVSVSKARAIIVLASDENADQSDARALRVVLSLTGVREGLGGHVVVEMSDL  240
At5g49960  TDIAKFEFDLMGTSVICRSGSPLILADLKKVSVSNARAIIVLGSDENADQSDARALRVVLSLTGVKEGWKGHVVVEMCDL  240
Os-CASTOR  ADIAKMEFDLKGTAIICRSGSPLILADLKKVSVSKARAIVVLAEEGNADQSDARALRTVLSLTGVKEGLRGHIVVELSDL  240
Zm-CASTOR  ADIAKMEFDMKGTAVICRSGSPLILADLKKVSVSKARAIVVLAEEGNADQSDARALRTVLSLTGVKEGLSGHIVVELSDL  240
Lj-CASTOR  LDIGKMEFDFKGTSVICRSGSPLILADLKKVSVSKARTIIVLAEDGNADQSDARALRTVLSLTGVKEGLRGHIVVEMSDL  240
Gm-CASTOR  LDIAKMEFDFKGTSVICRSGSPLILADLKKVSVSKARAIIVLAEDGNADQSDARALRTVLSLTGVKEGLRGHIVVELSDL  240
Mt-CASTOR  LDIARMEFEFKGTSVICRSGSPLILADLRKVSVSKARAIIVLAEDGNADQSDARALRTVLSLTGVKEGLRGHIVVELSDL  240
Vv-CASTOR  LDIAKMEFDFRGTSVICRSGSPLILADLKKVSVSKARAIIVLAEDGNADQSDARALRTVLSLTGVKEGLRGHIVVELSDL  240
Pt-CASTOR  MDIAKMEFDFKGTSVICRSGSPLILADLKKVSVSKARAIVVLAEDGNADQSDARALRTVLSLTGVKEGLKGHIVVELSDL  240
     ruler .......170.......180.......190.......200.......210.......220.......230.......240
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           *** *******: ::**************** *********:******.***:*:**:*..  * *:***** *:* *:*
Os-POLLUX  DNEPLVKLVGGELIETVVAHDVIGRLMIQCALQPGLAQIWEDILGFENAEFYIKRWPELDGMRFGDVLISFPDAVPCGVK   320
Zm-POLLUX  DNEPLVKLVGGELIETVVAHDVIGRLMIQCALQPGLAQIWEDILGFENAEFYIKQWPELDGMRFGDVLISFPDAVPCGVK   320
Vv-POLLUX  DNEPLVKLVGGELIETVVAHDVIGRLMIQCALQPGLAQIWENILGFENAEFYVKRWPQLDGMCFEDVLISFPEAIPCGIK   320
Pt-POLLUX  DNEPLVKLVGGELIETVVAHDVIGRLMIQCALQPGLAQIWEDILGFENAEFYIKRWPQLDGLLFQDVLISFPEAIPCGVK   320
  Mt-DMI1  DNEPLVKLVGGELIETVVAHDVIGRLMIQCALQPGLAQIWEDILGFENAEFYIKRWPELDDLLFKDILISFPDAIPCGVK   320
  Ps-SYM8  DNEPLVKLVGGELIETVVAHDVIGRLMIQCALQPGLAQIWEDILGFENAEFYIKRWPELDGLLFKDILISFPDAIPCGVK   320
Lj-POLLUX  DNEPLVKLVGGELIETVVAHDVIGRLMIQCALQPGLAQIWEDILGFENAEFYIKRWPELDGLSFKDILISFPDAIPCGVK   320
Gm-POLLUX  DNEPLVKLVGGELIETVVAHDVIGRLMIQCALQPGLAQIWEDILGFENAEFYIKRWPELDGLFFKDVLISFPDAIPIGVK   320
At5g49960  DNEPLVKLVGGERIETVVAHDVIGRLMIQCALQPGLAQIWEDILGFENAEFYIKKWPQLDGYCFEDVLISFPNAIPCGVK   320
Os-CASTOR  DNEVLVKLVGGDLVETVVAHDVIGRLMIQCARQPGLAQIWEDILGFENCEFYIKRWPQLDGMQFEDVLISFPDAIPCGIK   320
Zm-CASTOR  DNEVLVKLVGGDLVETVVAHDVIGRLMIQCARQPGLAQIWEDILGFENCEFYIKRWPKLDGMRFEDVLISFPEAVPCGIK   320
Lj-CASTOR  DNEVLVKLVGGDLVETVVAHDVIGRLMIQCARQPGLAQIWEDILGFENCEFYIKRWPQLDGMLFEDVLISFPAAIPCGIK   320
Gm-CASTOR  DNEVLVKLVGGDLVETVVAHDVIGRLMIQCARQPGLAQIWEDILGFENCEFYIKRWPQLEGMQFEDVLISFPAAIPCGIK   320
Mt-CASTOR  DNEVLVKLVGGDLVETVVAHDVIGRLMIQCARQPGLAQIWEDILGFENCEFYIKRWPQLDDMQFEDVLISFPAAIPCGIK   320
Vv-CASTOR  DNEVLVKLVGGDLVETVVAHDVIGRLMIQCARQPGLAQIWEDILGFENCEFYIKRWPELDGMQFEDVLISFPDAIPCGIK   320
Pt-CASTOR  DNEVLVKLVGGDLVKTVVAHDVIGRLMIQCARQPGLAQIWEDILGFENCEFYIKRWPQLHGMQFEDILISFPDAIPCGIK   320
     ruler .......250.......260.......270.......280.......290.......300.......310.......320
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           ::   ** :**.: * ::::.**::*******:* *  **  *           : .::**:******:.*** **:*
Os-POLLUX  IASKAGKILMNPDNDYVLQEGDEVLVIAEDDDTYVPASLP-QVRKGFLPNIPTPPKYPEKILFCGWRRDIHDMIMVLEAF   399
Zm-POLLUX  VASKSGKILMNPDDGYVLREGDEVLVIAEDDDTYAPAPLP-QVNKGFLPNIPTPPKYPEKILFCGWRRDIHDMIMVLEAF   399
Vv-POLLUX  VASDGGKIILNPEDNYVLREGDEVLVIAEDDDTYAPGPLP-EVHRVPFHGVISPPKYPERILFCGWRRDIDDMILVLEAF   399
Pt-POLLUX  VAAEGGKIKLNPDDNYALKEGDEILVIAEDDDTYAPGPLP-EVCRSSCPKTMDPPKYPEKILFCGWRRDIDDMIMVLEAL   399
  Mt-DMI1  VAADGGKIVINPDDNYVLRDGDEVLVIAEDDDTYAPGPLP-EVRKGYFPRIRDPPKYPEKILFCGWRRDIDDMIMVLEAF   399
  Ps-SYM8  VSADGGKIVINPDDNYVLRDGDEVLVIAEDDDTYAPGPLP-EVRKGYFPRIRDPPKYPEKILFCGWRRDIDDMIMVLEAF   399
Lj-POLLUX  VAADGGKIVINPDDSYVMRDGDEVLVIAEDDDTYSPGSLP-EVLKGFFPRIPDAPKYPEKILFCGWRRDIDDMIMVLEAF   399
Gm-POLLUX  VAADGGKIIINPDDSYVLRDGDEVLVIAEDDDTYAPGLLP-EVCKGLCPWIRDPPKYPEKILFCGWRRDIDDMIMVLEAL   399
At5g49960  VAADG-KIVLNPSDDYVLKEGDEILVIAEDDDTYAPGSLP-EVRMCHFPKMQDPPKYPEKILFCGWRRDIDDMIKVLEAL   398
Os-CASTOR  VASYGGKIILNPDDFYVLQEGDEVLVIAEDDDTYAPAPLP-KVMRGYLPKDFVVPKSPERILFCGWRRDMEDMIMVLDAF   399
Zm-CASTOR  VASYGGKIILNPDDCYVLQEGDEVIVIAEDDDTYAPAPLP-KVKEAVYIDIVHPERKPQKILLCGWRRDIDDMIMVLDAF   399
Lj-CASTOR  VASYGGKIILNPDDSYVLQEGDEVLVIAEDDDTYAPAPLP-MVRRGSLPKDFVYPKSPERILFCGWRRDMEDMITVLDAS   399
Gm-CASTOR  VASYGGKIILNPDDSYVLQEGDEILVIAEDDDTYAPASLP-TVWRGSLPKDFVYPKSPERILFCGWRRDMEDMIMVLDAS   399
Mt-CASTOR  VASYGGKIILNPDDSYVMQEGDEVLVIAEDDDTYAPTSLPNKVWRGSLPKDFVFPRSAERILFCGWRRDMEDMIMVLDAS   400
Vv-CASTOR  AAAYGGKIILNPDDSYILQEGDEVLVIAEDDDTYAPATLP-MVWCGKLPKNFIVPKSAEKILFCGWRRDMEDMIMVLDAF   399
Pt-CASTOR  VASCDGKIILNPEDSYVLQEDDEILVIAEDDDSYAPAALP-VVWRGSLPKDFIGPKSAEKILFCGWRRDMEDMIMVLDAF   399
     ruler .......330.......340.......350.......360.......370.......380.......390.......400
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           ** .*******:**  :** **  . ::.  * ** **:::*****:****.***::*** ::  ::*:*:*  ::****
Os-POLLUX  LAPGSELWMFNEVPEKERERKLTDGGMDIYGLTNIKLVHKEGNAVIRRHLESLPLETFDSILILADESVEDSIVHSDSRS   479
Zm-POLLUX  LAPGSELWMFNEVPEKEREIKLTDGGLDIGGLINIKLVHKEGNAVIRRHLESLPLETFDSILILADESVEDSIVHSDSRS   479
Vv-POLLUX  LAPGSELWMFNEVPIKEREKKLTDGGFDIFGLVNIKLVHHEGNAVIRRHLEDLPLETFDSILILADESLEDSIVHSDSRS   479
Pt-POLLUX  LAPGSELWMFNEVPEKEREKKLTDGGLDIHGLENITLVHREGNAVIKRHLENLPLETFDSWILNKDESLEDSIVHSDSRS   479
  Mt-DMI1  LAPGSELWMFNEVPEKERERKLAAGELDVFGLENIKLVHREGNAVIRRHLESLPLETFDSILILADESVEDSVAHSDSRS   479
  Ps-SYM8  LAPGSELWMFNEVPEKQRERKLAAGELDVFGLENIKLVHREGNAVIRRHLESLPLETFDSILILADESVEDSVAHSDSRS   479
Lj-POLLUX  LAPGSELWMFNEVPEKEREKKLAAGGLDVFGLENIKLVHREGNAVIRRHLESLPLETFDSILILADESVEDSVAHSDSRS   479
Gm-POLLUX  LAPGSELWMFNEVPEKEREKKLVDGGLDVSELENIKLVHREGNAVIRRHLEGLPLETFDSILILADESVEDSVAHSDSRS   479
At5g49960  LAPGSELWMFNEVPDQEREKKLTDAGLNISKLVNIKLVHRQGNAVIRRHLESLPLETFDSILILAEQSLENSIVHSDSRS   478
Os-CASTOR  LAPGSELWMFNDVPEMDRERKLIDGGLDFSRLENITLVHREGNAVIRRHLESLPLESFDSILILADESVEDSAIQADSRS   479
Zm-CASTOR  LAPGSELWMFNDVPEVDRERKLIDGGLDFSRLDNITLVHREGNAVIRRHLESLPLESFDSILILADESVEDSAIQADSRS   479
Lj-CASTOR  LAPDSELWMFNDVPEKEREKKLIDGGLDISRLENISLVNREGNAVIRRHLESLPLESFDSILILADESVEDSAIQADSRS   479
Gm-CASTOR  LAHGSELWMFNDVPEKEREKKLTDGGLDINRLENISLVNREGNAVIRRHLESLPLESFDSILILADESVEDSAIQADSRS   479
Mt-CASTOR  LAHNSELWMFNDVPEKEREKKLTDGGLDINRLENIILVNREGNAVIRRHLESLPLESFDSILILADESVEDSAIQADSRS   480
Vv-CASTOR  LANGSELWMFNDVPEKEREKKLIDGGLDINRLLNITLVNREGNAVIRRHLESLPLESFDSILILADESVEDSAIQADSRS   479
Pt-CASTOR  LAPGSELWMFNDVPENEREKKLIDGGLDLSRLENIQLVNREGNAVIRRHLESLPLQSFDSILILADESVEDSAIQADSRS   479
     ruler .......410.......420.......430.......440.......450.......460.......470.......480
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CLUSTAL X (1.83) MULTIPLE SEQUENCE ALIGNMENT

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           *********** :***           . * . .** :*::****:::******.**:**:*:*:***************
Os-POLLUX  LATLLLIRDIQSKRLPSKELKSP-LRYNGFCHSSWIREMQHASDKSIIISEILDSRTRNLVSVSKISDYVLSNELVSMAL   558
Zm-POLLUX  LATLLLIRDIQSKRLPSKELKSP-HRYNGFSHSAWIREMQHASDKSIIISEILDSRTRNLVSVSKISDYVLSNELVSMAL   558
Vv-POLLUX  LATLLLIRDIQSKRLPDRDTKSAASRHSGFSHSSWICEMQQASDKSIIISEILDSRTRNLVSVSRISDYVLSNELVSMAL   559
Pt-POLLUX  LATLLLIRDIQLKRLPHRDAKPTSLRISGFSHSSWIREMQQASDKSIIISEILDSRTRNLVSVSRISDYVLSNELVSMAL   559
  Mt-DMI1  LATLLLIRDIQSRRLPYRDTKSTSLRLSGFSHNSWIREMQQASDKSIIISEILDSRTRNLVSVSRISDYVLSNELVSMAL   559
  Ps-SYM8  LATLLLIRDIQSRRLPYRDTKSTSLRLSGFSHNSWIREMQQASDKSIIISEILDSRTRNLVSVSRISDYVLSNELVSMAL   559
Lj-POLLUX  LATLLLIRDIQSRRLPYKDTKSTSLRLSGFSHNSWIREMQQASDKSIIISEILDSRTRNLVSVSRISDYVLSNELVSMAL   559
Gm-POLLUX  LATLLLIRDIQSRRLPYRDTKSTSLRLSGFSHNSWIREMQQASDKSIIISEILDSRTRNLVSVSRISDYVLSNELVSMAL   559
At5g49960  LATLLLIRDIQSKRLPYKDAKSSALRISGFPNCCWIRKMQQASDKSIVISEILDSRTKNLVSVSRISDYVLSNELVSMAL   558
Os-CASTOR  LATLLLIRDIQAKRLPFREAMVSHVTRGSFCEGSWIGEMQQASDKSVIISEILDPRTKNLLSVSKISDYVLSNELVSMAL   559
Zm-CASTOR  LATLLLIRDIQAKRLPCKESLISHVPRGTFSEGSWIGEMQQASDKSVIISEILDPRTKNLLSVSKISDYVLSNELVSMAL   559
Lj-CASTOR  LATLLLIRDIQARRLPY-VAMASQTQGGNFSKGSWIGEMKQASDKTVIISEILDPRTKNLLSMSKISDYVLSNELVSMAL   558
Gm-CASTOR  LATLLLIRDIQARRLPY-VSMASQAHGGSFSKGSWIGEMKQASDKTVIISEILDPRTKNLISMSKISDYVLSNELVSMAL   558
Mt-CASTOR  LATLLLIRDIQARRLPY-PAMASQAHGGSFSKGSWIGEMKQASDKTVIISEILDPRTKNLLSMSKISDYVLSNELVSMAL   559
Vv-CASTOR  LATLLLIRDIQAKRLPYREAMVTQGHRGSFSQGSWIGEMQQASDKSVIISEILDPRTKNLLSMSKISDYVLSNELVSMAL   559
Pt-CASTOR  LATLLLIRDIQSKRLP----MVNQVRRGTFSQGSWIGEMQQASDKSVIISEILDPRTKNLLSMSKISDYVLSNELVSMAL   555
     ruler .......490.......500.......510.......520.......530.......540.......550.......560
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           ******:*** **:****::  .:    ::  :   *:: *:::: *.* * *::****    ::*:***  *    :**
Os-POLLUX  AMVAEDKQINRVLEELFAEEGNEMCIRSAEFYLYEQEELSFFDIMVRAREERDEVVIGYRLANDDQAIINPEQKSEIRKWS   638
Zm-POLLUX  AMVAEDKQINRVLEELFAEEGNEMCIRSAEFYLYEQEELSFFDIMVRAREERDEIVIGYRLANTDQAIINPEYKSQIRKWS   638
Vv-POLLUX  AMVAEDKQINRVLEELFAEEGNEMCIRPAEFYLFDQEELCFYEIMIRGRQRREIVIGYRLATTERAIINPPDKSKRRKWS   639
Pt-POLLUX  AMVAEDKQINRVLEELFAEEGNEMCIKPAEFYLFDQEEIPFYEIMIRGRQRNEIVIGYRLANAERAIINPPEKSEPRKWS   639
  Mt-DMI1  AMVAEDKQINRVLEELFAEEGNEMCIKPAEFYLFDQEELCFYDIMIRGRTRKEIVIGYRLANQERAIINPSEKSVPRKWS   639
  Ps-SYM8  AMVAEDKQINRVLEELFAEEGNEMCIKPAEFYLFDQEELCFYDIMIRGRTRKEIVIGYRLASQERALINPSEKSMTRKWS   639
Lj-POLLUX  AMVAEDKQINRVLEELFAEQGNEMCIKPAEFYLFDQEELCFYDIMIRGRARQEIIIGYRLANQERAIINPSEKLVARKWS   639
Gm-POLLUX  AMVAEDKQINRVLEELFAEEGNEMCIKPAEFYLFDQEELCFYNIMIRGRTRKEIVIGYRLANQDRAIINPSEKSVPRKWS   639
At5g49960  AMVAEDKQINRVLKELFAEKGNELCIRPAEFYIYDQEEVCFYDIMRRARQRQEIIIGYRLAGMEQAVINPTDKSKLTKWS   638
Os-CASTOR  AMVAEDRQINDVLEELFAEQGNEMQIRPADLYLREDEELNFFEVMLRGRQRKEIVIGYRLVDAERAIINPPDKVSRRRWS   639
Zm-CASTOR  AMVAEDRQINNVLEELFAEQGNEMQIRPSDMYLREEEELNFFEVILRARQRKEIVIGYRLEAAERAIINPIDKVSRRRWS   639
Lj-CASTOR  AMVAEDRQINDVLEELFAEEGNEMHIRQADIYLREGEEMSFYEIMLRARQRREILIGYRLANAERAVINPPAKTGRRKWS   638
Gm-CASTOR  AMVAEDRQINDVLEELFAEEGNEMHIRKADLYLCEGEELNFYEIMLRARQRREIVIGYRLANAERAVINPPVKTDRRKWS   638
Mt-CASTOR  AMVAEDRQINSVLEELFAEQGNEMHIRQADLYLHESEKLSFYEIMLRARQRREILIGYRLANAERAVINPPAKSDKWKWS   639
Vv-CASTOR  AMVAEDRQINDVLEELFAEEIWSIAWDPAD-ELGVCEELSFYEIILRARQRREIVIGYRQSSAERAIINPPAKNEKQRWS   638
Pt-CASTOR  AMVAEDQQINDVLEELFADEGNELQIRQADLYLSEGEELSFYEVLLRARQRREIVIGYRAANAEKAVINPPAKSERRRWS   635
     ruler .......570.......580.......590.......600.......610.......620.......630.......640
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             *****::
Os-POLLUX  LDDVFVVISKGD   650
Zm-POLLUX  LDDVFVVISKGD   650
Vv-POLLUX  IEDVFVVISI--   649
Pt-POLLUX  LDDVFVVISLGD   651
  Mt-DMI1  LDDVFVVLASGE   651
  Ps-SYM8  LDDVFVVIASGE   651
Lj-POLLUX  LGDVFVVIASGD   651
Gm-POLLUX  LGDVFVVIAKGD   651
At5g49960  LDDVFVVIASSQ   650
Os-CASTOR  AKDVFVVITEKE   651
Zm-CASTOR  PKDVFVVISEKE   651
Lj-CASTOR  LKDVFVVITEKE   650
Gm-CASTOR  LKDVFVVITEKE   650
Mt-CASTOR  LKDVFVVITEKE   651
Vv-CASTOR  LKDVFVVIAEKE   650
Pt-CASTOR  LKDVFVVIAEKE   647
     ruler .......650..
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