

Human 1 MPARTAPARVPTLAVPAISLPDVRRLKDLKEDS--LTKKCKRREKLNLLHEFLQAEVQHQLDLEIKLHKKEELSEEGYLAQVQVQVLLNKLSLENGHAYNREVRNGRLE
Opossum 1a 1 MPARTGPAFVAAPGSPALQLPPEVRRRLKDLKEDDILTEKEKCKKKLLSLLHEFLQAEVQHQLDLEIKLHKKEELSEEGYLAQVQVQVLLNKLSLENGDHTLNQKVNQGLE
Opossum 1b 1 -----E-C-KKKKLSLLHEFLQAEVQHQLDLEIKLHKKEELSEEGYLAQVQVQVLLNKLSLENGDHTLNQKVNQGLE
Opossum 1ψ 1 -----
Wallaby 1 1 MPARTGPAFVAAPGSPGLPLPPEVRRRLKDLKEDDILTEKEKTKKKLSLLHEFLQAEVQHQLDLEIKLHKKEELSEEGYLAQVQVQVLLNKLSLENGDHTLNPKKNGSLE
Koala 1 1 MPARTGPAFVAAPGSPALQLPPEVRRRLKDLKEDDILTEKEKTKKKLSLLHEFLQAEVQHQLDLEIKLHKKEELSEEGYLAQVQVQVLLNKLSLENGDHTLNPKKNGSLE
Tasmanian devil 1 1 -----LKDLKEDDILTEKEKTKKKLSLLHEFLQAEVQHQLDLEIKLHKKEELSEEGYLAQVQVQVLLNKLSLENGDHTLNPKKNGSLE
Wallaby 2 1 MPARTGPAFVAAPGSPGLPLPPEVRRRLKDLKEDDILTEKEKTKKKLSLLHEFLQAEVQHQLDLEIKLHKKEELSEEGYLAQVQVQVLLNKLSLENGDHTLNPKKNGSLE
Koala 2 1 -----
Tasmanian devil 2 1 -----
Platypus 1 MPARTAPTSPLPTL-----PLPPEVRRRLKDLKEDGSRTEKECKRREKLNLLHEFLQAEVQVQVLLNKLSLENGHAYNREVRNGRLE

Human 109 NGNQARSAA-----RRVGMAD--ANSPPKPLSKPRTPRRSKSDGBAKPEPSESPRITRKSSTHOTTITSHFAKGPAPKRKQPEESERAKSES--KE--B-KDQDEK
Opossum 1a 111 NGTYTSDDDFEKSI---EEDSIVEMEE--ATGSSTLSLKRKPRRSKSDGBAKPEPSESPRITRKSSTHOTTITSHFAKGPAPKRKQPEESERAKSES--KE--B-KDQDEK
Opossum 1b 70 NGTYTSDDDFEKSI---E--SAVEMEE--ATGSSTLSLKRKPRRSKSDGBAKPEPSESPRITRKSSTHOTTITSHFAKGPAPKRKQPEESERAKSES--KE--B-KDQDEK
Opossum 1ψ 1 -----
Wallaby 1 111 NGTYTSDDDFEKSI---EEDSIVEMEE--ATGSSTLSLKRKPRRSKSDGBAKPEPSESPRITRKSSTHOTTITSHFAKGPAPKRKQPEESERAKSES--KE--B-KDQDEK
Koala 1 111 NGTYTSDDDFEKSI---EEDSIVEMEE--ATGSSTLSLKRKPRRSKSDGBAKPEPSESPRITRKSSTHOTTITSHFAKGPAPKRKQPEESERAKSES--KE--B-KDQDEK
Tasmanian devil 1 84 NGTYTSDDDFEKSI---EEDSIVEMEE--ATGSSTLSLKRKPRRSKSDGBAKPEPSESPRITRKSSTHOTTITSHFAKGPAPKRKQPEESERAKSES--KE--B-KDQDEK
Wallaby 2 111 NGTYTSDDDFEKSI---EEDSIVEMEE--ATGSSTLSLKRKPRRSKSDGBAKPEPSESPRITRKSSTHOTTITSHFAKGPAPKRKQPEESERAKSES--KE--B-KDQDEK
Koala 2 1 -----
Tasmanian devil 2 1 -----
Platypus 106 NGAVVSDDELDLKSALDVEEDSTMDMEEAVSPSTSGSKPRKPRRSKNGENK--SPASSRVTRSSGKOPTIIVSLFSKSGIKRKRSEEVNGEIKQEMNVEKEED-LEEK---

Human 204 RRRVTSRERVARPLPAEPEPERAKSGTRTEKEEERDEKEERLRSQTKEPTPKQKLKEEPDREARAGVQADEDEDGDEKDEKHSRQPKDLAAKRPEEKEPEKVNQPOISD
Opossum 1a 213 -----
Opossum 1b 171 -----
Opossum 1ψ 1 -----
Wallaby 1 211 -----
Koala 1 211 -----
Tasmanian devil 1 183 -----
Wallaby 2 213 -----
Koala 2 1 -----
Tasmanian devil 2 1 -----
Platypus 212 -----

Human 314 EKDEDEK--EKKRRKTPKPEPE--KKMARAKT--VMNS--KTHPPKCMDCROYLDLDDPLKFGQDPDGDALDEPEMLTDERLSIFDANEDGFESYDLPQHRVTSFVSVDKKG
Opossum 1a 213 -----E-QGEEKMKFEVKEGSEIKEVVQSKA--VLEFV--KSTPPKCMDCROYLDLDDPLKFGQDPDGDALDEPEMLTDERLSIFDANEDGFESYDLPQHRVTSFVSVDKKG
Opossum 1b 171 -----E-RGGKMKFEVKEGSEIKEVVQSKA--VLEFV--KSTPPKCMDCROYLDLDDPLKFGQDPDGDALDEPEMLTDERLSIFDANEDGFESYDLPQHRVTSFVSVDKKG
Opossum 1ψ 1 -----APSLOC--NCLRFQDDPLKFGQDPDGDALDEPEMLTDERLSIFDANEDGFESYDLPQHRVTSFVSVDKKG
Wallaby 1 211 -----E-QGEEKMKFEVKEGSEIKEVVQSKA--VLEFV--KSTPPKCMDCROYLDLDDPLKFGQDPDGDALDEPEMLTDERLSIFDANEDGFESYDLPQHRVTSFVSVDKKG
Koala 1 211 -----E-QGEEKMKFEVKEGSEIKEVVQSKA--VLEFV--KSTPPKCMDCROYLDLDDPLKFGQDPDGDALDEPEMLTDERLSIFDANEDGFESYDLPQHRVTSFVSVDKKG
Tasmanian devil 1 183 -----E-QGEEKMKFEVKEGSEIKEVVQSKA--VLEFV--KSTPPKCMDCROYLDLDDPLKFGQDPDGDALDEPEMLTDERLSIFDANEDGFESYDLPQHRVTSFVSVDKKG
Wallaby 2 213 -----XX
Koala 2 1 -----Y-P--QCPCQLQYINDPDLKHLGDPDGDALDEPEMLTDERLSIFDANEDGFESYDLPQHRVTSFVSVDKKG
Tasmanian devil 2 1 -----LEAEMLADKLCIFDSEKGFESYDLPQHRVTSFVSVDKKG
Platypus 212 -----E-QEKRRIKLEAKEGSEV--EETVVKVPAKSTPPKCMDCROYLDLDDPLKFGQDPDGDALDEPEMLTDERLSIFDANEDGFESYDLPQHRVTSFVSVDKKG

Human 418 HLCFPTDGLTEKNIELFSGVAKPIYDDNPSLGGVGNKLNLPINPWWITGFDGGEKALIGFTTAFADYILMASEEYAPIFALMOEKIYMSKIVVEFLQNNPVSYEDL
Opossum 1a 314 HLCFPTDGLTEKNIELFSGVAKPIYDDNPSLGGVGNKLNLPINPWWITGFDGGEKALIGFTTAFADYILMASEEYAPIFALMOEKIYMSKIVVEFLQNNPVSYEDL
Opossum 1b 272 HLCFPTDGLTEKNIELFSGVAKPIYDDNPSLGGVGNKLNLPINPWWITGFDGGEKALIGFTTAFADYILMASEEYAPIFALMOEKIYMSKIVVEFLQNNPVSYEDL
Opossum 1ψ 72 HLCFPTDGLTEKNIELFSGVAKPIYDDNPSLGGVGNKLNLPINPWWITGFDGGEKALIGFTTAFADYILMASEEYAPIFALMOEKIYMSKIVVEFLQNNPVSYEDL
Wallaby 1 312 HLCFPTDGLTEKNIELFSGVAKPIYDDNPSLGGVGNKLNLPINPWWITGFDGGEKALIGFTTAFADYILMASEEYAPIFALMOEKIYMSKIVVEFLQNNPVSYEDL
Koala 1 312 HLCFPTDGLTEKNIELFSGVAKPIYDDNPSLGGVGNKLNLPINPWWITGFDGGEKALIGFTTAFADYILMASEEYAPIFALMOEKIYMSKIVVEFLQNNPVSYEDL
Tasmanian devil 1 283 HLCFPTDGLTEKNIELFSGVAKPIYDDNPSLGGVGNKLNLPINPWWITGFDGGEKALIGFTTAFADYILMASEEYAPIFALMOEKIYMSKIVVEFLQNNPVSYEDL
Wallaby 2 314 XXX
Koala 2 70 HLCFPTDGLTEKNIELFSGVAKPIYDDNPSLGGVGNKLNLPINPWWITGFDGGEKALIGFTTAFADYILMASEEYAPIFALMOEKIYMSKIVVEFLQNNPVSYEDL
Tasmanian devil 2 44 HLCFPTDGLTEKNIELFSGVAKPIYDDNPSLGGVGNKLNLPINPWWITGFDGGEKALIGFTTAFADYILMASEEYAPIFALMOEKIYMSKIVVEFLQNNPVSYEDL
Platypus 314 HLCFPTDGLTEKNIELFSGVAKPIYDDNPSLGGVGNKLNLPINPWWITGFDGGEKALIGFTTAFADYILMASEEYAPIFALMOEKIYMSKIVVEFLQNNPVSYEDL

Human 528 INKIETTVPAGLNFRFTEDSLRHAQFVVEQVESYDEAGDSDEQPIVITPCMRDLIKLAGVTLGKRRARRQAIRRPTKI DDKRGPTKATTTKLVYLFDTFFSBOI
Opossum 1a 424 INKIETTVPAGLNFRFTEDSLRHAQFVVEQVESYDEAGDSDEQPIVITPCMRDLIKLAGVTLGKRRARRQAIRRPTKI DDKRGPTKATTTKLVYLFDTFFSBOI
Opossum 1b 382 INKIETTVPAGLNFRFTEDSLRHAQFVVEQVESYDEAGDSDEQPIVITPCMRDLIKLAGVTLGKRRARRQAIRRPTKI DDKRGPTKATTTKLVYLFDTFFSBOI
Opossum 1ψ 181 HQIE-----X*AR--Q--I--H--TKKQKIKR--PTKVT--TTKLVYQIFD--F--SBOI
Wallaby 1 422 INKIETTVPAGLNFRFTEDSLRHAQFVVEQVESYDEAGDSDEQPIVITPCMRDLIKLAGVTLGKRRARRQAIRRPTKI DDKRGPTKATTTKLVYLFDTFFSBOI
Koala 1 422 INKIETTVPAGLNFRFTEDSLRHAQFVVEQVESYDEAGDSDEQPIVITPCMRDLIKLAGVTLGKRRARRQAIRRPTKI DDKRGPTKATTTKLVYLFDTFFSBOI
Tasmanian devil 1 393 INKIETTVPAGLNFRFTEDSLRHAQFVVEQVESYDEAGDSDEQPIVITPCMRDLIKLAGVTLGKRRARRQAIRRPTKI DDKRGPTKATTTKLVYLFDTFFSBOI
Wallaby 2 424 XXX
Koala 2 180 INATEKTKPPGLNFRFTEDSLRHAQFVVEQVESYDEAGDSDEQPIVITPCMRDLIKLAGVTLGKRRARRQAIRRPTKI DDKRGPTKATTTKLVYLFDTFFSBOI
Tasmanian devil 2 154 IQNIEBNNVPPGLNFRFTEDSLRHAQFVVEQVESYDEAGDSDEQPIVITPCMRDLIKLAGVTLGKRRARRQAIRRPTKI DDKRGPTKATTTKLVYLFDTFFSBOI
Platypus 424 INKIETTVPAGLNFRFTEDSLRHAQFVVEQVESYDEAGDSDEQPIVITPCMRDLIKLAGVTLGKRRARRQAIRRPTKI DDKRGPTKATTTKLVYLFDTFFSBOI

Human 637 EKDR--EDK---ENAKRRRCVCEVCOQPECGKCKACQDMVKFGGSRGSKQACLRRCRCPNLAVKAEADEDEVDNIPEMPSPKMLQCKKKQNKTRISWVCAPIKSD
Opossum 1a 533 EKNEREDDK---ENAMKRRRCVCEVCOQPECGKCKACQDMVKFGGSRGSKQACLRRCRCPNLAVKAEADEDEVDNIPEMPSPKMLQCKKKQNKTRISWVCAPIKSD
Opossum 1b 491 EKNER--EDK---ENAMKRRRCVCEVCOQPECGKCKACQDMVKFGGSRGSKQACLRRCRCPNLAVKAEADEDEVDNIPEMPSPKMLQCKKKQNKTRISWVCAPIKSD
Opossum 1ψ 224 DKQGREBEK---ESFMRRCPCGICBFCQOPECGKCKACQDMVKFGGSRGSKQACLRRCRCPNLAVKAEADEDEVDNIPEMPSPKMLQCKKKQNKTRISWVCAPIKSD
Wallaby 1 531 EKNEREDDK---ENAMKRRRCVCEVCOQPECGKCKACQDMVKFGGSRGSKQACLRRCRCPNLAVKAEADEDEVDNIPEMPSPKMLQCKKKQNKTRISWVCAPIKSD
Koala 1 531 EKNEREDDK---ENAMKRRRCVCEVCOQPECGKCKACQDMVKFGGSRGSKQACLRRCRCPNLAVKAEADEDEVDNIPEMPSPKMLQCKKKQNKTRISWVCAPIKSD
Tasmanian devil 1 502 EKNEREDDK---ENAMKRRRCVCEVCOQPECGKCKACQDMVKFGGSRGSKQACLRRCRCPNLAVKAEADEDEVDNIPEMPSPKMLQCKKKQNKTRISWVCAPIKSD
Wallaby 2 533 KNGQDDEG---TAVKRRRCVCEVCOQPECGKCKACQDMVKFGGSRGSKQACLRRCRCPNLAVKAEADEDEVDNIPEMPSPKMLQCKKKQNKTRISWVCAPIKSD
Koala 2 289 DRSGKDKNGKDEAD---TAVKRRRCVCEVCOQPECGKCKACQDMVKFGGSRGSKQACLRRCRCPNLAVKAEADEDEVDNIPEMPSPKMLQCKKKQNKTRISWVCAPIKSD
Tasmanian devil 2 262 DKNGKDESE---GAL--KRRRCVCEVCOQPECGKCKACQDMVKFGGSRGSKQACLRRCRCPNLAVKAEADEDEVDNIPEMPSPKMLQCKKKQNKTRISWVCAPIKSD
Platypus 533 EKNEREDDK---ENAMKRRRCVCEVCOQPECGKCKACQDMVKFGGSRGSKQACLRRCRCPNLAVKAEADEDEVDNIPEMPSPKMLQCKKKQNKTRISWVCAPIKSD

Human 742 GKKSYYKVCIDSEITLEVGDVSVSPDDPTKPLYLARITALWEDSSNGQMFHAHWFACAGIDTVLGATSDPDLFLVDECEDMQLSYIHGKVNVIYKAPSNWMSMEGGLDM
Opossum 1a 639 GKGDYYQKVCIDSEITLEVGDVSVSPDDPTKPLYLARITALWEDSSNGQMFHAHWFACAGIDTVLGATSDPDLFLVDECEDMQLSYIHGKVNVIYKAPSNWMSMEGGLDM
Opossum 1b 596 GKGDYYQKVCIDSEITLEVGDVSVSPDDPTKPLYLARITALWEDSSNGQMFHAHWFACAGIDTVLGATSDPDLFLVDECEDMQLSYIHGKVNVIYKAPSNWMSMEGGLDM
Opossum 1ψ 329 GARNYYQIHYINHEIYQVGDVSVSPDDPTKPLYLARITALWEDSSNGQMFHAHWFACAGIDTVLGATSDPDLFLVDECEDMQLSYIHGKVNVIYKAPSNWMSMEGGLDM
Wallaby 1 637 GKGDYYQKVCIDSEITLEVGDVSVSPDDPTKPLYLARITALWEDSSNGQMFHAHWFACAGIDTVLGATSDPDLFLVDECEDMQLSYIHGKVNVIYKAPSNWMSMEGGLDM
Koala 1 637 GKGDYYQKVCIDSEITLEVGDVSVSPDDPTKPLYLARITALWEDSSNGQMFHAHWFACAGIDTVLGATSDPDLFLVDECEDMQLSYIHGKVNVIYKAPSNWMSMEGGLDM
Tasmanian devil 1 608 GKGDYYQKVCIDSEITLEVGDVSVSPDDPTKPLYLARITALWEDSSNGQMFHAHWFACAGIDTVLGATSDPDLFLVDECEDMQLSYIHGKVNVIYKAPSNWMSMEGGLDM
Wallaby 2 638 XXX
Koala 2 398 EBRNYYEMVINSSEKIQVGDVSVSPDDPTKPLYLARITALWEDSSNGQMFHAHWFACAGIDTVLGATSDPDLFLVDECEDMQLSYIHGKVNVIYKAPSNWMSMEGGLDM
Tasmanian devil 2 366 EBRNYYEMVINSSEKIQVGDVSVSPDDPTKPLYLARITALWEDSSNGQMFHAHWFACAGIDTVLGATSDPDLFLVDECEDMQLSYIHGKVNVIYKAPSNWMSMEGGLDM
Platypus 639 GKGDYYQKVCIDSEITLEVGDVSVSPDDPTKPLYLARITALWEDSSNGQMFHAHWFACAGIDTVLGATSDPDLFLVDECEDMQLSYIHGKVNVIYKAPSNWMSMEGGLDM