Supplementary Information

for

Unique Loss of the PYHIN Gene Family in Bats Amongst Mammals: Implications for

Inflammasome Sensing

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Supplementary Data S1. PYRIN domain alignment sequences

>Armadillo_AIM2
KEILLLKGLDDITDEELQKFKFFLRDVLKSSTGKLEKANRTEVADLMIQNAGG
VSALDKTIAIFQKL-NYMHQAKILK-
>Armadillo_MNDA
KKIVLLKGFEAISDYHFNTIKSLLASDLKLTKKMQDDYDRIKIADLMEKKFPG
PTCVDKLIELLKDIPSLKDIVETLRK
>Chimpanzee_AIM2
KEILLLTGLDNITDEELDRFKFFLSDEFNIATGKLHTANRIQVANLMIQNAGAV
SAVMKTIRIFQKL-NYMLLAKRLQE
>Chimpanzee_AIM2l
KEILLLTSLDNITDEELDRCKCFLPDDFNIATGKLHTGNSTSSQLDLKRWRGV-
-
CSEEDGIFQKL-NYMLVAKCLRE
>Chimpanzee_IFI16
KNIVLLKGLEVINDYHFRMVKSLLSNDLKLNLKMREEYDKIQIADLMEEKFR
GDAGLGKLIQIFKDIPTLEDLAETLKK
>Chimpanzee_MNDA
KKILLLKGFELMDDYHFTTIKSLLAYDLGLTTKMQEEYNRIKITDLMEKKFQG
VACLDKLIELAKDMPSLKNLVNNLRK
>Chimpanzee_PYHIN1
KKIVLLKGLEVINDYHFRIVKSLLSNDLKLNPKMKEEYDKIQIADLMEEKFPG
DAGLGKLIEFFKEIPTLGDLAETLKR
>Cow_1
KKIVLLKGFQHINDKCFNMIKSLLAHDLKLTRKMQDEYDRVKIADLMELKFR
GPDCVDKLIELVKEIDEIKDLAKVLRK
>Dog_1
KKIILLKGLEPINDYQFSIVKSVLARDLGLTANMQEEYNKVKIADLMEKKFPG
VACVNKLIDLFKEMPSLTDIVKQLRN
>Dog_2
KKIILLKGLEPINDYQFSIVKSVLARDLGLTANMQKEYNKVKIADLMEKKFPG
VACVNKLIDLFKEMQDCEDI------
>Dolphin_1
KRIVLLKGFQHIKDYQFSMIKSLLARDLRLTSKMQDDYDRIKIADLMEVRYPG
AACVEKLIDLIKDIEELKDLAKTLRK
>Elephant_1
KKIVLLKGLEEINDYHFYIVKSLLAHDLRLXPKVQEEHDTIKIADLMAEKFPGI
ACVDKLTELLKDIKDL---------
>Elephant_2
KKIVLLKGLESINDYQFNTIKSLLARDLQLTKKMQDEYDRIKIADLMEEKFRG
AASVDKLIELFKDMPQLKDLAKSLR-
>Elephant_3
KKILLLKGLQPISEYQFNMVKSVLAHDLQLNKKAQYGYNKIQIADLMEDKFP
GATCLDILIELFEDIEGLKDLAKTLR-
>Horse_AIM2
KEILLLTGLDNITDEELDRFKFFLPDELKVSTAKLENANRTEVANLMIQNVGA
VSAVTKTIHVFQKL-NYMHVAKSLQE
>Horse_2
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KIVLLKGLEPISAYHFSMVKSLLAHGLQLTAKPQDEYSKIEIAKLMAEKYRGA
TCVDKLIDLYKDIPELKSLVKNLR-
>Horse_3
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KIVLLKGLEHINDYYFNVVKSLLAHDLGLTTKMQDEYNRIKIAHLIEEKFQGA
ACVNKLIELLKDIPE----------
>Horse_4
KKIILLKGLEPINEYQFSMVKFLLASDLKLTRKAQNEYNRIQIADLMTENFPRA
TCVDKLIELYKDIAELKQLAKTLKN
>Horse_5
KKILLLKGLEPISEYHFSIVKSLFAKDLKLTEKAQNEYNRIQIADLMEESFPEG
ACVDALIDLYKDIAELKDLAKTLK-
>Horse_6
KRIVLLKGLEPISEYHFSIVKSLLAHDLKLSRKAQNEYNRIQIADLMEVKFRGA
ACVDALIKLYKDIAELKELAKTLKN
>Human_POP3
KEILLLTSLDNITDEELDRFKCFLPDEFNIATGKLHTLNSTS-SQLDLKRWHGV-
-CSEEDRIFQKL-NYMLVAKCLRE
>Human_AIM2
KEILLLTGLDNITDEELDRFKFFLSDEFNIATGKLHTANRIQVATLMIQNAGAV
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>Human_IFI16
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>Human_MNDA
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VACLDKLIELAKDMPSLKNLVNNLRK
>Human_PYHIN1
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DAGLGKLIEFFKEIPTLGDLAETLKR
>Mouse_AI607873
KRIVLLKGLECINKHHFSLFKSLLARDLSLERDNQEKYSTIQIANMMEEKFKP
DAGLGELIEFCEKVPALRKRAEILKK
>Mouse_AIM2
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MLLLTGLDHITEEELKRFKYFALTEFQIARSTLDVADRTELADHLIQSAGAAS
AVTKAINIFQKL-NYMHIANALE-
>Mouse_IFI214
KRIVLLTGLMGINDHDFRMVKSLLSKELKLNKMQDEYDRVKIADLMEDKFP
KDAGVVQLIKLYKQIPGLGDIANKLKN
>Mouse_IFI203
KNIVLLKGLENMEDYQFRTVKSLLRKELKLTKKMQEDYDRIQLADWIEDKFP
KDAGLDKLIKVCEHIKDLKDLAKKLK-
>Mouse_IFI204
KRIVLLRGLECINKHYFSLFKSLLARDLNLERDNQEQYTTIQIANMMEEKFPA
DSGLGKLIAFCEEVPALRKRAEILKK
>Mouse_IFI205
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RLVLLEGLECINKHQFNLFKSLMVKDLNLEEDNQEKYTTFQIANMMVKKFPA
DAGLDRLINFCERVPTLKKRAEILKK

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>Mouse_MNDA
KRIVLLRGLECINKHYFSLFKSLLARDLNLERDNQEQYTTIQIANMMEEKFPA
DSGLGKLIEFCEEVPALRKRAEILKK
>Mouse_MNDAL
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>Mouse_PYDC3
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EDAGLSKLIEVCEDIPELAARVDILR-
>Mouse_PYDC4
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>Mouse_PYDCl
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EDAGLSKLIEVCEDIPELADHVDILRK
>Mouse_PYHIN1
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KDAGVDQLIKLYKQIPGLGDIANKLKN
>Opossum_1
---ILLSGLEELQNEDFKKFKFFLSNDCLMMR--
VHNLDRIDLATCMKKQLPCPSFMNKFIEILKKM-NLNETAKKYK-
>Pig_1
KKIILLKGLEKIDEYHFSMIKSLLAHDLELTREMQDNYDRVKIADLMELKFPGI
TCVNILEELLSDMIK----------
>Pig_2
KRIVLLKGFQHMDDYHFKMIKSLLAHDLRLTRKMQEEYDRIKIADLMEERFR
GAACVDKLIELVKGIDDIKHLVKPLQ-
>Rat_AIM2
--
MLLLTGLDHITEEELKRFKYLALTEFNIPRKTLNIADRTELADQLIQSAGAASA
VAKAISIFQKL-NYMDIAKALE-
>Rat_2
KKIVLMFGLERINDYNFRTLKSLLTHDLKLTQKMQDDYDRIKIADLMEEKFPE
DAGLSKLIEVWEGIPEFEDHADTLRK
>Rat_3
KRIVLLKGLEPLSSHHFSLFKSLLASDLKLERHMQEQYTKVQIADMMEDEFPD
DAGLGKFIKFCEDLPALRKRAEILKR
>Rat_4
KEIVLIKGLEDMKDYAFRTIKSLLRKELNLTKKMQDDYDRIQLADLLEDKFPQ
DAGLSKLIEVCESIEELKELTDNLKR
>Tasmanian_devil_1
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ILLESLTELDEEEFKICKYHLKNRGLIIRMEGKGDRTDIAESMKAKFGAVSALK
HITNVFKKMNLNEIVENLQ-
>Parnell's_mustached_bat
QEVLLLTGLDNITDEELDRFKIFFPDEFITPTGKLEYAYRTR--
KPTIKNSSVVSVLMKNI-IFQKL-NYRHVLQKVSE
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