

Figure S1.

>AtMUG1

MANRDLMLGQNRNIGIGQGQSLVLGHSLSLGLGQNHVDVELGQGHNMDLGLAHHDDHHE
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HEFSLSDNNHQLVGENHELDNLELAVDSSHELEIDQHGEMVMVSTPVQARALTADMTY
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PTFTIRTIHESHSCGGINHLGHQQASVQWVASSVEQRLRENPNCKPKEILEEIH RVHGIT
LSYKQAWRGKERIMATMRGSFE EGYRLLPQYCEQVKRTNPGSIASVYGSPADNCFQRLFI
SFQASIYGF LNACRPLLLGLDRTYL KSKYLG TLLLATGFDGDGALFPLAFGIVDEENDENW
MMFLCELHNLL ETNTENMPRLTILSDRQKGIVEGVEQNFP TAFHGFCMRHLSSEFRKEFN
NTLLVNYLWEAAQALTVIEFEAKILEIEEISQDAAYWIRRI PRLWATAYFEGQRFGHLT
ANIVESLNSWIAEASGLPIIQMMECIRRQLMTWFNERRETSMQWTSILVPTAERRVAEAL
ELARTYQVLRANEAEFEVISHEGNNIVDIRNRCCLCRGWQLYGLPCAHAVAALLSCRQNV
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>AtMUG2

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NDKLALLVSQDLNDNLQLAVGHCMNRDPLPGLNISLSQQL ELAPPILQCRSLQTAP EHNL
IVGMEFSDVLACRRALRDAIALRFEMQTVKSDKTRFTAKCNSEGCPWR IHC AKL PGLPT
FTIRTIHGSHTCGGISHLGHQQASVQWVADAVTERLKVNP HCKPKEILEEQIHQVHGITLT
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QASICGFLNACRPLIGLDRTVL KSKYVGTLLLATGFDGEGAVFPLAF AIISEENDSSWQW
FLSELRQLLEVNSENMPKLTILSSRDQSIVDGVD TNFPTAFHGLCVHCLTESVRTQFNNS
ILVNLVWEAAKCLTDFEFEGKMG EIAQISPEAASWIRNIQHSQWATYCFEGTRFGHLTAN
VSESLNSWVQDASGLPIIQMLESIRRQLMTLFNERRETSMQW SGM L VPSAERHVLEAIEE
CRLYPVHKANEAEFEVMTSEGWIVDIRCRTCYCRGWEL YGLPCSHAVAALLACRQNVYR
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RRSQGEDRGRQKRVVRC SRCNQA GHFR TTTCTAPI

>AtMUG3

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LELEMSQSTEF SQSVMPSPSSQCWSMSGAGTDHEMVVGMEFSDAYACRRAIKNAAISLR
FEMRTIKSDKTRFTAKCNSKGC PWR IHC AKVSNAPTFTIRTIHGSHTCGGISHLGHQQAS
VQWVADVVAEKLENPHFKPKEILEE IYRVHGISLSYKQAWRGKERIMATLRG STL RGSF
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TVL KSKYPG TLLLATGFDGDGAVFPLAF AIVNEENDNWHRFLSELRKILDENMPKLTIL
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NKIEQISPEASLWIQNKSPARWASSYFEGTRFGQLTANVITESL SNWVEDTSGLPIIQTM
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TCTAPM

>AtMUG4

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>AtMUG5

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>AtMUG6

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>AtMUG7

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LSEAIPPVPMDDMIDDTMGPEELPISISVSAPPAVTMEVMNRAEDAQIIINPSELMSI
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NPGSLATFTTKEDSSFHRVVFVSHASVHGFLACRPLVFLDSMQLKSKYQGTLLAATSVD
GDDEVFPLAFVAVDAETDDNWEWFLQLRSLSTPCYITFVADRQKNLQESIPKVFESF
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VRRISANEANGNLTPSMEVKLEKESLRAQTVHVAPSADNNLFQVRGETYELVNMAECDCS
CKGWQLTGLPCHHAVAVINYYGRNPYDYCSKYFTVAYYRSTYAQSINPVPLLEGEMCRES
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>AtMUG8

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TSSPRSVSRRRVMEEPIILLQDENVTDRRRSLRNRGEIRKPVIEITDDDDVDADEVSD
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>O51

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>O52

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>O53

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>O55

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DTQA

>O56

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>Mt1

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API

>Mt2

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>Mt3

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>Mt6

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>Cp1

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>Cp3

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KCATEGCPWRIHAAKLPGLPTFSIRTIHDHHTCVGIAHLGHQQASVQWVADTLAEHIKQN
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>Cp4

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>Cp5

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>Cp6

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>Cp7

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>Vv4

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>Vv5

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>Vv6

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>Vv9

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QM

>Vv10

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>Vv11

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>Vv12

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>Zm1

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>Zm2

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>Zm3

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>Zm4

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>Zm5

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>Zm6

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>Zm8

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>Bd1

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>Bd2

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>Bd7

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>Sb4

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>Sb5

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