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|hg19-chr3:46,411,633

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|hg19-chr3:46,411,733

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 L Q I D Y I W S E E S C H L C I W H S V S P H K C
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|hg19-chr3:46,411,833

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|hg19-chr3:46,411,933

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|hg19-chr3:46,412,033

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|hg19-chr3:46,412,133

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|hg19-chr3:46,412,233

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|hg19-chr3:46,412,333

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|hg19-chr3:46,412,433

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|hg19-chr3:46,412,533

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|hg19-chr3:46,412,633

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|hg19-chr3:46,412,733

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|hg19-chr3:46,412,833

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|hg19-chr3:46,412,933

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|hg19-chr3:46,413,033

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|hg19-chr3:46,413,133

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|hg19-chr3:46,413,233

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|hg19-chr3:46,413,333

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|hg19-chr3:46,413,433

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|hg19-chr3:46,413,533

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|hg19-chr3:46,413,633

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|hg19-chr3:46,413,733

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|hg19-chr3:46,413,833

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 E L Q P G M V A H A C N P S I L G G * G R R I A *
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|hg19-chr3:46,413,933

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 A T * C D L V S I K I N K I S L V W W R L * S P A

|hg19-chr3:46,414,033

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|hg19-chr3:46,414,133

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|hg19-chr3:46,414,233

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|hg19-chr3:46,414,333

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|hg19-chr3:46,414,433

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|hg19-chr3:46,414,533

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|hg19-chr3:46,414,633

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 S Y C P L L G S L C C R P V G L W K Y N V S T L D
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L E S S S S S S * Q S I G T W L S S M L C L L * K
L W N L L H H P P D N R * V P G C R P C C V C F K
S G I F F I I L L T I D R Y L A V V H A V F A L K
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|hg19-chr3:46,414,933

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L I F H T V S I N S G R I S R H * R * S S W G W S
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|-----delta 32-----|

|hg19-chr3:46,415,133

TACTCGGGAATCCTAAAACTCTGCTTCGGTGTGCGAAATGAGAAGAAGAGGCACAGGGCTGTGAGGCTTATCTTC
||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
atgagcccttaggatttttgagacgaagccacagctttactcttcttctccgtgtcccgacactccgaatagaag
T R E S * K L C F G V E M R R R G T G L * G L S S
L L G N P K N S A S V S K * E E E A Q G C E A Y L
Y S G I L K T L L R C R N E K K R H R A V R L I F
...215.....220.....225.....230.....235.....240.....245.....250.....255.....260.....265.....270.....275.....280.....285.....290.....295.....300.....305.....310.....315.....320.....325.....330.....335.....340.....345.....350.....355.....360.....365.....370.....375.....380.....385.....390.....395.....400.....405.....410.....415.....420.....425.....430.....435.....440.....445.....450.....455.....460.....465.....470.....475.....480.....485.....490.....495.....500.....505.....510.....515.....520.....525.....530.....535.....540.....545.....550.....555.....560.....565.....570.....575.....580.....585.....590.....595.....600.....605.....610.....615.....620.....625.....630.....635.....640.....645.....650.....655.....660.....665.....670.....675.....680.....685.....690.....695.....700.....705.....710.....715.....720.....725.....730.....735.....740.....745.....750.....755.....760.....765.....770.....775.....780.....785.....790.....795.....800.....805.....810.....815.....820.....825.....830.....835.....840.....845.....850.....855.....860.....865.....870.....875.....880.....885.....890.....895.....900.....905.....910.....915.....920.....925.....930.....935.....940.....945.....950.....955.....960.....965.....970.....975.....980.....985.....990.....995.....1000.....

|hg19-chr3:46,415,233

TCTGGGCTCCCTACAACATTGTCCTTCTCCTGAACACCTTCCAGGAATCTTTGGCCTGAATAATTGCAGTAGCT
||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
agaccgagggatggtgtaacaggaagaggacttggtggaaggctccttaagaaccggacttattaacgtcatcga
S G L P T T L S F S * T P S R N S L A * I I A V A

L G S L Q H C P S P E H L P G I L W P E * L Q * L
F W A P Y N I V L L L N T F Q E F F G L N N C S S
.....250.....255.....260.....265.....270....

|hg19-chr3:46,415,333

GGTGACAGAGACTCTTGGGATGACGCACTGCTGCATCAACCCCATCATCTATGCCTTTGTCGGGGAGAAGTTCAG
|.||||4|||.||||5|||.||||6|||.||||7|||.||||8|||.||||9|||.||||0|||.||
ccactgtctctgagaaccctactgcgtgacgacgtagttgggtagtagatacggaaacagcccctcttcaagtc
R * Q R L L G * R T A A S T P S S M P L S G R S S
G D R D S W D D A L L H Q P H H L C L C R G E V Q
V T E T L G M T H C C I N P I I Y A F V G E K F F
0.....285.....290.....295.....300.....300.....300

|hg19-chr3:46,415,433

AAGCACATTGCCAAACGCTTCTGCAAATGCTGTTCTATTTTCCAGCAAGAGGCTCCCGAGCGAGCAAGCTCAGTT
|.||||4|||.||||5|||.||||6|||.||||7|||.||||8|||.||||9|||.||||0|||.||
ttcgtgtaacggtttgcgaagacgtttacgacaagataaaaggctcgttctccgagggctcgctcgttcgagtc
S T L P N A S A N A V L F S S K R L P S E Q A Q F
K A H C Q T L L Q M L F Y F P A R G S R A S K L S
K H I A K R F C K C C S I F Q Q E A P E R A S S V
...315.....320.....325.....330.....335.....

|hg19-chr3:46,415,533

AAATATCTGTGGGCTTGTGACACGGACTCAAGTGGGCTGGTGACCCAGTCAGAGTTGTGCACATGGCTTAGTTTT
|.||||4|||.||||5|||.||||6|||.||||7|||.||||8|||.||||9|||.||||0|||.||
tttatagacacccgaacactgtgcctgagttcaccgaccactgggtcagttcaacacgtgtaccgaatcaaaa
K Y L W A C D T D S S G L V T Q S E L C T W L S F
N I C G L V T R T Q V G W * P S Q S C A H G L V F
E I S V G L * H G L K W A G D P V R V V H M A * F
.....350.....

|hg19-chr3:46,415,633

GGTGGGAGAGGTCTTTTTTAAAAGGAAGTTACTGTTATAGAGGGTCTAAGATTCATCCATTTATTTGGCATCTGT
|.||||4|||.||||5|||.||||6|||.||||7|||.||||8|||.||||9|||.||||0|||.||
ccaccctctccagaaaaaattttccttcaatgacaatatctcccagattctaagtaggtaataaaccgtagaca
G W E R S F L K G S Y C Y R G S K I H P F I W H L
G G R G L F * K E V T V I E G L R F I H L F G I C

V G E V F F K R K L L L * R V * D S S I Y L A S V

|hg19-chr3:46,415,733

CCATCAATTATAGAAAGCCAAATCAAATATGTTGATGAAAAATAGCAACCTTTTTATCTCCCCTTCACATGCAT
||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
ggtagttaatatctttcgggttagttttatacaactactttttatcggttgaaaaatagaggggaagtgtacgta
H Q L * K A K S K Y V D E K * Q P F Y L P F T C I
P I N Y R K P N Q N M L M K N S N L F I S P S H A
P S I I E S Q I K I C * * K I A T F L S P L H M H

|hg19-chr3:46,415,833

ACTCCGAAAGTTCCTTATGTATATTTAAAAGAAAGCCTCAGAGAATTGCTGATTCTTGAGTTTAGTGATCTGAAC
||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
tgaggctttcaaggaatacatataaattttctttcggagtctcttaacgactaagaactcaaactcactagacttg
T P K V P Y V Y L K E S L R E L L I L E F S D L N
L R K F L M Y I * K K A S E N C * F L S L V I * T
H S E S S L C I F K R K P Q R I A D S * V * * S E

|hg19-chr3:46,415,933

TGTACAACCTTTTTACCTAGTACAAGGCAACATATAGGTTGTAAATGTGTTTAAAACAGGTCTTTGTCTTGCTATC
||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
acatgttgaaaaatggatcatggtccggttgatatccaacatttacacaaattttgtccagaaacagaacgatac
M Y N F L P S T R Q H I G C K C V * N R S L S C Y
C T T F Y L V Q G N I * V V N V F K T G L C L A M
V Q L F T * Y K A T Y R L * M C L K Q V F V L L W

|hg19-chr3:46,416,033

GTAAAGAAATGACACTTTTCATGTGTGATTTCCCCTCCAAGGTATGGTTAATAAGTTTCACTGACTTAGAACCCAG
||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
catttctttactgtgaaaagtacacactaaaggggaggtccataccaattattcaaagtgactgaatcttggtc
* R N D T F H V * F P L Q G M V N K F H * L R T F
S K E M T L F M C D F P S K V W L I S F T D L E P
V K K * H F S C V I S P P R Y G * * V S L T * N Q

.....
 |hg19-chr3:46,416,133

CTGGGGAAGCTTCTTAAATGAGAAGGAATTTGAGTTGGATCATCTATTGCTGGCAAAGACAGAAGCCTCACTGCA
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 gacccttcgaagaatttactcttccttaaactcaacctagtagataacgaccgtttctgtcttcggagtgacgt
 L G K L L K * E G I * V G S S I A G K D R S L T A
 W G S F L N E K E F E L D H L L L A K T E A S L C
 A G E A S * M R R N L S W I I Y C W Q R Q K P H C

|hg19-chr3:46,416,233

TAGAAGGAGACAGAGCTGGTTGGGAAGACATGGGGAGGAAGGACAAGGCTAGATCATGAAGAACCTTGACGGCAT
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 atcttcctctgtctcgaccaacccttctgtaccctccttcctgtttccgatctagtagtacttcttggaaactgccgta
 V E G D R A G W E D M G R K D K A R S * R T L T A
 * K E T E L V G K T W G G R T R L D H E E P * R H
 R R R Q S W L G R H G E E G Q G * I M K N L D G I

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CAGGGAGATCCTGGTTGGTGTTCAGAAAGTTTACTCTGTGGCCAAAGGAGGGTCAGGAAGGATGAGCATTTAGC
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 gtccctctaggaccaaccacaacgtcttccaaatgagacaccggtttcctcccagtccttcctactcgtaaattcc
 R E I L V G V A E G L L C G Q R R V R K D E H L C
 A G R S W L V L Q K V Y S V A K G G S G R M S I *
 Q G D P G W C C R R F T L W P K E G Q E G * A F R

|hg19-chr3:46,416,433

GGTCAGGGTGAGGATGGCCTCTGCTAAGCTCAAGGCGTGAGGATGGGAAGGAGGGAGGTATTCGTAAGGATGGGA
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 ccagtcccactcctaccggagacgattcgagttccgcactcctacccttcctccctccataagcattcctaccct
 G Q G E D G L C * A Q G V R M G R R E V F V R M G
 V R V R M A S A K L K A * G W E G G R Y S * G W E
 R S G * G W P L L S S R R E D G K E G G I R K D G

|hg19-chr3:46,416,533

TGAGGATGCAGAGTCAGCAGAACTGGGGTGGATTTGGGTTGGAAGTGAGGGTCAGAGAGGAGTCAGAGAGAATCC
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 actcctacgtctcagtcgtcttgacccccacctaaccacaaccttcactcccagtcctctcctcagtcctctcttagg
 M R M Q S Q Q N W G G F G L E V R V R E E S E R I
 * G C R V S R T G V D L G W K * G S E R S Q R E S
 E D A E S A E L G W I W V G S E G Q R G V R E N F

|hg19-chr3:46,416,633

CCCTTGAAAAGACATCAAGCACAGAAGGAGGAGGAGGAGGTTTAGGTCAAGAAGAAGATGGATTGGTGTAAAAGC
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 gggaacttttctgtagttcgtgtcttcctcctcctcctcctccaaatccagttcttcttctacctaaccacattttcc
 P * K D I K H R R R R R R F R S R R R W I G V K G
 T L E K T S S T E G G G G G L G Q E E D G L V * K
 P L K R H Q A Q K E E E E V * V K K K M D W C K R

|hg19-chr3:46,416,733

CACAGTCTCACCCAGACTCCAGGCTGTCTTTCCTGACTGAATGCTTCTGACTTCATAGATTTCCCTTCCCATCCCAGCT
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 gtgtcagagtgggtctgaggtccgacagaaagtgacttacgaagactgaagtatctaaaggaagggtagggtcga
 H S L T Q T P G C L S L N A S D F I D F L P I P A
 T V S P R L Q A V F H * M L L T S * I S F P S Q L
 T Q S H P D S R L S F T E C F * L H R F P S H P S

|hg19-chr3:46,416,833

AGACTAGATTTATGAATACACGAGGTATGAGGTCTAGGAACATACTTCAGCTCACACATGAGATCTAGGTGAGGA
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 tctgatctaaataacttatgtgctccatactccagatccttgtatgaagtcgagtggtactctagatccactcct
 E T R F M N T R G M R S R N I L Q L T H E I * V R
 R L D L * I H E V * G L G T Y F S S H M R S R * G
 D * I Y E Y T R Y E V * E H T S A H T * D L G E L

|hg19-chr3:46,416,933

GGTTGTTGGGAGGATTCTATGAGGCAACCACAGGCAGCATTTAGCACATACTACACATTCAATAAGCATCAAAC
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 ccaacaaccctcctaagataactccgttggtgtccgctcgtaaatcgtgtatgatgtgtaagttattcgtagtttga
 V V G R I L * G N H R Q H L A H T T H S I S I K L
 G L L G G F Y E A T T G S I * H I L H I Q * A S N
 G C W E D S M R Q P Q A A F S T Y Y T F N K H Q T

|hg19-chr3:46,417,033

CTGAGCAAAGCATTGAGCAAAGGGGTCCCATAGAGGTGAGGGAAGCCTGAAAACTAAGATGCTGCCTGCCAGT
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 gactcgtttcgtaactcgtttccccagggtatctccactcccttcggactttttgattctacgacggacgggtca
 L S K A L S K G V P * R * G K P E K L R C C L P S
 * A K H * A K G S H R G E G S L K N * D A A C P V
 T E Q S I E Q R G P I E V R E A * K T K M L P A Q

|hg19-chr3:46,417,133

TGCATTTAACCGTCAATAGGCAAAGGGGGGAAGGGACATATTCATTTGGAAATAAGCTGCCTTGAGCCTTAAAAC
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 acgtaaattggcagttatccgtttcccccttccctgtataagtaaactttattcgcggaactcgggaattttg
 L H L T V N R Q R G E G T Y S F G N K L P * A L K
 C I * P S I G K G G K G H I H L E I S C L E P * N
 A F N R Q * A K G G R D I F I W K * A A L S L K T

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CCGTATTTTCAGACTGAATGGGGGTGGGGGGGCGCCTTAGGTACTTATTCCAGATGCCTTCTCCAGACAAACCAG
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 ggcataaagtctgacttacccccaccccccccgcggaatccatgaataaggctctacggaagaggctctgtttggtc
 R I S D * M G V G G A P * V L I P D A F S R Q T F
 S V F Q T E W G W G G R L R Y L F Q M P S P D K P
 P Y F R L N G G G G A L G T Y S R C L L Q T N Q

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CTCCCTTTGAAATGAATATACCCCTTAGTGTTTGGGTATATTCATTTCAAAGGGAGAGAGAGAGGTTTTTTTTCTG
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 gagggaaactttacttatatgggggaatcacaacccatataagtaaagtttccctctctctctccaaaaaaagac
 L P L K * I Y P L V F G Y I H F K G R E R G F F L
 S L * N E Y T P * C L G I F I S K G E R E V F F C
 P P F E M N I P L S V W V Y S F Q R E R E R F F S

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ACTTGAGACTGTTTTGAATTTGGGGGATGGCTAAAACCATCATAGTACAGGTAAGGTGAGGGAATAGTAAGTGGT
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 tgaactctgacaaaacttaaaccctaccgattttggtagtatcatgtccattccactcccttatcattcacca
 Y L R L F * I W G M A K T I I V Q V R * G N S K W
 T * D C F E F G G W L K P S * Y R * G E G I V S G
 L E T V L N L G D G * N H H S T G K V R E * * V V

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TCAGAATAATAAGAGGTGCTACTGACTTTCTCAGCCTCTGAATATGAACGGTGAGCATTGTGGCTGTCAGCAGGA
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 agtcttattattctccacgatgactgaaagagtcgggagacttatacttgccactcgtaacaccgacagtcgtcct
 Q N N K R C Y * L S Q P L N M N G E H C G C Q Q E
 V R I I R G A T D F L S L * I * T V S I V A V S R
 S E * * E V L L T F S A S E Y E R * A L W L S A G

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TTTGCTCTTAAGTTGTGGAGAGTGCAACAGTAGCATAGGACCCTACCCTCTGGGCCAAGTCAAAGACATTCTGAC
 ||.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
 aaacgagaattcaacacctctcacgttgatcatcgatcctgggatgggagacccggttcagtttctgtaagactg
 F A L K L W R V Q Q * H R T L P S G P S Q R H S D
 L L L S C G E C N S S I G P Y P L G Q V K D I L T
 F C S * V V E S A T V A * D P T L W A K S K T F *

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TATGTGAAAGTTACAAATTGCTTGAAAGAAAATATGCATCTAATAAAAAACACCTTCTAAAATAAttcattatat
|.||||4||||.||||5||||.||||6||||.||||7||||.||||8||||.||||9||||.||||0||||.||
atacactttcaatgtttaacgaactttcttttatacgtagattatTTTTTTgtggaagattttattaagtaata

V C E S Y K L L E R K Y A S N K K H L L K * F I I
Y V K V T N C L K E N M H L I K N T F * N N S L Y
M * K L Q I A * K K I C I * * K T P S K I I H Y I

.....