Ret CRISPR Data

Three Ret alleles were induced using CRISPR by Logan Myers: LM1, LM2 and LM3.

LM1 is a single base deletion earlier in the open reading frame with the frameshift leading to a stop codon after two amino acids.

LM2 is an inframe 18 base pair deletion at or very close to the calcium binding site at the start of the cadherin like domain.

LM3 is a single base deletion in the same location as LM2 that leads to a frameshift.

LM1

Wild type

ATGGAGTCAACTACTATTGTTTTTGTGACTCTGCTCACAATTATAACCCAACGTAAACAC

M E S T T I V F V T L L T I I T Q R K H

TGTGCGGCCGTCGATGTTTACTTTCCCACCACGTCGGTGAAATTCAATATGCCCATCAAT deleted in LM1

C A A V D V Y F P T T S V K F N M P I N

Mutant

ATGGAGTCAACTACTATTGTTTTTGTGACTCTGCTCACAATTATAACCCAACGTAAACAC

M E S T T I V F V T L L T I I T Q R K H

TGTGCGGCCGTCGATGTTTACTTTCCCACCcgtcggtga

C A A V D V Y F P T R R -

Sequence

Gaaaaagtaaccacgatggagtcaactactattgtttttgtgactctgctcacaattata ATG

M E S T T I V F V T L L T I I

Acccaacgtaaacactgtgcggccgtcgatgtttactttcccaccacgtcggtgaaattc deleted in LM1

T Q R K H C A A V D V Y F P T T S V K F

aatatgcccatcaatgaggaatcggagagcatattctccaaaatcccgctagcccagttc

N M P I N E E S E S I F S K I P L A Q F

caagtgctgcggatggaggacaaccggttagccagtgattacttgtatagcctggagcag

Q V L R M E D N R L A S D Y L Y S L E Q

aatccactactccgaataaacagttcctccggcgagatatatatgcgcactgactaccgc

N P L L R I N S S S G E I Y M R T D Y R

tcaccaaactcaagtgccacattcttggtgaccgcatttcccagagatcaaccggatcac

S P N S S A T F L V T A F P R D Q P D H

gagctgctgaatgtttcgcatctttcgttggaggttacacctcagcccctggaggagtac

E L L N V S H L S L E V T P Q P L E E Y

tgttcggaactggagcacatttgcttctggagcagtgctcagtacactatagcagagtcg

C S E L E H I C F W S S A Q Y T I A E S

cacggtccatatcggcggaaggatttttttgaacccgtacttatcggcgcccttaattcc

H G P Y R R K D F F E P V L I G A L N S

cgcgctgcgaagtatctgtgtcctcatgtatccctggaatattccctgaacgctggtagt

R A A K Y L C P H V S L E Y S L N A G S

tcccattttgttttgaaacaaaatcgactctacacccgacaaaccttggatcacgacgag

S H F V L K Q N R L Y T R Q T L D H D E

ctcaatggactgaatgccaaggcagggcagctgcaggccaggattacctgcacggttaaa

L N G L N A K A G Q L Q A R I T C T V K

ttgtccagcagggatcagagaaaattctcgcgcatcttggatatcaagttactggatcgc

L S S R D Q R K F S R I L D I K L L D R

aatgataatggacccaagttgcaggagagtagctctaagtttgatttctatctggagcag

N D N G P K L Q E S S S K F D F Y L E Q

ccctacttccaagcggacgaggaggcgggaaaaaaagtaatctacgtggacaaggataca

P Y F Q A D E E A G K K V I Y V D K D T

ttggaggcaaatgctcaccttgtctacgccgtccacaatgactctcatggtctgtttcgg

L E A N A H L V Y A V H N D S H G L F R

cccgactgccacgcctacgaggcggatcacacgggcagaccacataccatcgtcagttgt

P D C H A Y E A D H T G R P H T I V S C

CaactgcgattctcccgaaacggtgtcttccgggaaaccccctatTgtgtgtccttggag deleted in LM2

Q L R F S R N G V F R E T P Y C V S L E deleted in LM3

gctcgggatctgaccattgtaagccgtgtcgatgccatgtcagcgacagccaatgtttgc

A R D L T I V S R V D A M S A T A N V C

tatcatattaatctgagtaagcttcacgaatctgagcaagaattaccgcaagctcttccc

Y H I N L S K L H E S E Q E L P Q A L P

ctacgggcacgtcaacatcgaatattcgagagcgaagaattcaatggagattctgcaggc

L R A R Q H R I F E S E E F N G D S A G

cgatctctaagtcctccgaccgtggattacgataaggatgtttccgtatacagatcggct

R S L S P P T V D Y D K D V S V Y R S A

gcttctaattttcgagttgtccagcctgacagttttttggacttgatgcggttacgatct

A S N F R V V Q P D S F L D L M R L R S

attcgattcgatattgtggaggataaacttggagcttttggtattacctcaacatcgggt

I R F D I V E D K L G A F G I T S T S G

attgtctttgtgaagaacccacaggttttggaggaggcaccggaaaccatatacttcctg

I V F V K N P Q V L E E A P E T I Y F L

aatgtcacctggatcgatcagcaaaggctgtcgcacgtgagagtgatcaatgtgcacttg

N V T W I D Q Q R L S H V R V I N V H L

gttcatggtagacccgagaatactagttgcgaactgaaggtcaagtctcgatcacagaca

V H G R P E N T S C E L K V K S R S Q T

tgtgcccagattaaataccaatcgcaatgcgttcgatattgcggcttggccacaggtggt

C A Q I K Y Q S Q C V R Y C G L A T G G

ggatcttgccagtggagggggtccaactcagccatgttcggcactagatatggttcctgt

G S C Q W R G S N S A M F G T R Y G S C

gtacccgaatctcgttactgtccagatcatgtctgtgatcccctagaggaactgaatcct

V P E S R Y C P D H V C D P L E E L N P

atggcctgtccgcaggattgcacgccagctggaagaatcgtgggtccccattcaagtaat

M A C P Q D C T P A G R I V G P H S S N

gagaataagagagggatatacagtgcctcgggtacctgcatttgcgaggataatggcaag

E N K R G I Y S A S G T C I C E D N G K

tgctcgtgcgctccgttagatgaggaacccaagatgaagaaaccgcgaaaacgaaaaaac

C S C A P L D E E P K M K K P R K R K N

gaaacagaggcggaacctctgctgggggtacgaaggggcactcctccgaatcagccactt

E T E A E P L L G V R R G T P P N Q P L

caggatcccatgcttctgggtgtcctaaatgtggccggtttcgaatgcgatcgctcctgc

Q D P M L L G V L N V A G F E C D R S C

atgttcttcgtgatcacgtgccctctattgttcgttctcctgctcctctgtttgctgatt

M F F V I T C P L L F V L L L L C L L I

gcgcagagaaagatgctccaacgtcgcttgggcaagcaatcaatgaccacgtcgtcgaaa

A Q R K M L Q R R L G K Q S M T T S S K

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Q A L P E S G G G D F A L M P L Q S G F

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R F E S G D A K W E F P R E K L Q L D T

gtcttgggagagggtgaatttggtcaggtgctaaagggctttgccaccgagatcgctggc

V L G E G E F G Q V L K G F A T E I A G

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L P G I T T V A V K M L K K G S N S V E

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Y M A L L S E F Q L L Q E V S H P N V I

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K L L G A C T S S E A P L L I I E Y A R

tatggctctctgaggagctatcttcgactcagtcggaagatcgagtgtgccggcgtagat

Y G S L R S Y L R L S R K I E C A G V D

ttcgcagatggagtggagcctgttaatgttaagatggtacttacctttgcttggcagatt

F A D G V E P V N V K M V L T F A W Q I

tgcaagggtatggcttacctttctgagttaaagttggttcatcgtgatttggctgctaga

C K G M A Y L S E L K L V H R D L A A R

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N V L L A D G K I C K I S D F G L T R D

gtttacgaggacgatgcctatttaaagagatcccgagatcgtgtgcccgtcaagtggatg

V Y E D D A Y L K R S R D R V P V K W M

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A P E S L A D H V Y T S K S D V W S F G

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V L C W E L I T L G A S P Y P G I A P Q

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E T N A V S N P L Y C G D D S A L I T T

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A P P G Y D L P R P L L D A T A N G Q V

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L R Y E N D L R F P L N I R K S S C T P

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S Y S N M T S E P P A T T S L P H Y S V

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P V K R G R S Y L D M T N K S L I P D N

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K D S L S F F Y Y Y F L L L L L Q K A I

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H - V H L V H L K Q S H R H S R Y L G I

cgaaccaatgtacttatttatcgatgacttttatgactttaatgaatgtaaatacttgca

R T N V L I Y R - L L - L - - M - I L A

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S T A Y V - I N F - K L F E I I - N K I

aaccaaatat

N Q I