

Codon Alignment View

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MF978248|Pichincha|2

ATGAGTGGAAAGTCAGAGTCATCCAACACTGGAAACTCCCCCTTCCCAAATCTCACTAAA 60

_M_S_G_K_S_E_S_S_N_T_G_N_S_P_F_P_N_L_T_K_

MT240490|Imbabura|20

ATGAGTGGAAAATCAGAGTCATCCAACACTGGAAACTCCCCCTTCCCAAGTCTCACTAAA

_M_S_G_K_S_E_S_S_N_T_G_N_S_P_F_P_S_L_T_K_

MT240491|Imbabura|20

ATGAGTGGAAAATCAGAGTCATCCAACACTGGAAACTCCCCCTTCCCAAGTCTCACTAAA

_M_S_G_K_S_E_S_S_N_T_G_N_S_P_F_P_S_L_T_K_

MT240492|Imbabura|20

ATGAGTGGAAAATCAGAGTCATCCAACACTGGAAACTCCCCCTTCCCAAGTCTCACTAAA

_M_S_G_K_S_E_S_S_N_T_G_N_S_P_F_P_S_L_T_K_

MT240493|Imbabura|20

ATGAGTGGAAAATCAGAGTCATCCAACACTGGAAATTTCCCCCTTCCCAAGTCTCACTAAA

_M_S_G_K_S_E_S_S_N_T_G_N_S_P_F_P_S_L_T_K_

MT240494|Pichincha|2

ATGAGTGGAAAGTCAGAGTCATCCAACACTGGAAACTCCCCCTTCCCAAATCTCACTAAA

_M_S_G_K_S_E_S_S_N_T_G_N_S_P_F_P_N_L_T_K_

MT240495|Pichincha|2

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_M_S_G_K_S_E_S_S_N_I_G_N_S_P_F_P_N_I_T_K_

MT240496|Tungurahua|

ATGAGTGGAAAGTCAGAGTCATCCAACACTGGAAACTCCCCCTTCCCAAGCCTCACTAAA

_M_S_G_K_S_E_S_S_N_T_G_N_S_P_F_P_S_L_T_K_

MT240497|Tungurahua|

ATGGGTGAAAAATCAGAGTCATCCAACACTGGAAACCTCCCCTTCCCAAATCTCACCAAA

_M_G_E_K_S_E_S_S_N_T_G_N_L_P_F_P_N_L_T_K_

MT240498|Tungurahua|

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_M_S_G_K_S_E_S_S_N_T_G_S_S_P_F_P_N_L_T_K_

MT240499|Tungurahua|

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_M_S_G_K_S_E_S_S_N_T_G_S_S_P_F_P_N_L_T_K_

MT240500|Tungurahua|

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MT240501|Tungurahua|

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MT240502|Tungurahua|

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MT240503|Tungurahua|

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MT240504|Tungurahua|

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_M_S_G_K_S_E_S_S_N_T_G_N_S_P_F_P_N_L_T_K_

MT240505|Azuay|2017|

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MT240506|Azuay|2017|

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MT240507|Loja|2017|B

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MT240508|Loja|2017|B

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MT240509|Loja|2017|B

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MT240510|Loja|2017|B

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MT240511|Loja|2017|B

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MT240512|Azuay|2016|

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_M_S_G_K_S_E_S_S_N_T_G_N_P_P_F_P_N_L_T_K_

MT240513|Azuay|2016|

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MT240514|Azuay|2016|

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MZ490607|Tungurahua|

ATGAGTGGAAAGTCAGAGTCATCCAACACTGGAAACTCCCCCTTCCCAAGCCTCACTAAA
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MZ490608|Tungurahua|

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MZ490609|Tungurahua|

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_ _ _ _ _ # _S_E_S_S_N_T_G_N_S_P_F_P_N_L_T_K_

MZ490610|Tungurahua|

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MZ490611|Tungurahua|

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MZ490612|Tungurahua|

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OL771197|Pichincha|2

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OL771198|Pichincha|2

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OL771199|Pichincha|2

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OL771200|Pichincha|2

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| | | | |

MF978248|Pichincha|2

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_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240490|Imbabura|20

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_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240491|Imbabura|20

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_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240492|Imbabura|20

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_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240493|Imbabura|20

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MT240494|Pichincha|2

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MT240495|Pichincha|2

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_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_D_E_

MT240496|Tungurahua|

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_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240497|Tungurahua|

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MT240498|Tungurahua|

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MT240499|Tungurahua|

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MT240500|Tungurahua|

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MT240501|Tungurahua|

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_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240502|Tungurahua|

GAGACAATGGCTAGCTTCAATTTCAAACCGAGTTCAAACCTTGCTGCCCAGCGAGGACGAG

_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_D_E_

MT240503|Tungurahua|

GAGACAATGGCCAACTTCAACTTCAAACCAAGTTCAAACCTTGCTACCTAGCGAGGAAGAG

_E_T_M_A_N_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240504|Tungurahua|

GAGACAATGGCTAGCTTCAATTTCAAACCGAGTTCAAACCTTGCTGCCCAGCGAGGACGAG

_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_D_E_

MT240505|Azuay|2017|

GAGACAATGGCCAGCTTCAACTTCAAACCAAGTTCAAACCTTGCTACCTAGCGAGGAAGAG

_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240506|Azuay|2017|

GAGACAATGGCCAGCTTCAACTTCAAACCAAGTTCAAACCTTGCTACCTAGCGAGGAAGAG

_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240507|Loja|2017|B

GAGACAATGGCCAGCTTCAACTTCAAACCAAGTTCAAACCTTGCTACCTAGCGAGGAAGAG

_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240508|Loja|2017|B

GAGACAATGGCCAGCTTCAACTTCAAACCAAGTTCAAACCTTGCTACCTAGCGAGGAAGAG

_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240509|Loja|2017|B

GAGACAATGGCCAGCTTCAACTTCAAACCAAGTTCAAACCTTGCTACCTAGCGAGGAAGAG

_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240510|Loja|2017|B

GAGACAATGGCCAGCTTCAACTTCAAACCAAGTTCAAACCTTGCTACCTAGCGAGGAAGAG

_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240511|Loja|2017|B

GAGACAATGGCCAGCTTCAACTTCAAACCAAGTTCAAACCTTGCTACCTAGCGAGGAAGAG

_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MT240512|Azuay|2016|

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_E_T_M_A_G_F_N_F_K_P_S_S_N_L_L_P_S_E_D_E_

MT240513|Azuay|2016|

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MT240514|Azuay|2016|

GAGACAATGGCCAGCTTCAACTTCAAACCGAGCTCTAACTTGCTGCCCAGCGAGGACGAG
_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_D_E_

MZ490607|Tungurahua|

GAGACGATGGCCAGCTTCAACTTCAAACCAAGTTCAAACCTTGCTACCTAGCGAGGAAGAG
_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MZ490608|Tungurahua|

GAGACGATGGCCAGCTTCAACTTCAAACCAAGTTCAAACCTTGCTACCTAGCGAGGAAGAG
_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MZ490609|Tungurahua|

GAGACAATGGCCAGCTTCAACTTCAAACCAAGTTCAAACCTTGCTACCTAGCGAGGAAGAG
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MZ490610|Tungurahua|

GAGACAATGGCCAGTTTCAACTTCAAACCAAGTTCAAACCTTGCTACCTAGCGAGGAAGAG
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MZ490611|Tungurahua|

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_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

MZ490612|Tungurahua|

GAGACAATGGCCAGCTTCAATTTCAAACCAAGCTCAAACCTTGCTGCCTAGCGAGGACGAG
_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_D_E_

OL771197|Pichincha|2

GAGACAATGGCCAGCTTCAACTTCAAACCAAGTTCAAACCTTGCTACCTAGCGAGGAAGAG
_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

OL771198|Pichincha|2

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_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

OL771199|Pichincha|2

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_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_E_E_

OL771200|Pichincha|2

GAGACAATGGCCAGCTTCAATTTCAAACCAAGTTCAAATCTGCTGCCTAGCGAGGATGAG
_E_T_M_A_S_F_N_F_K_P_S_S_N_L_L_P_S_E_D_E_

| | | | |

MF978248|Pichincha|2

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_L_K_I_I_S_T_L_L_V_A_A_K_I_P_N_A_S_T_T_I_

MT240490|Imbabura|20

CTCAAGATCATATCCACATTAATGGTGGCTGCTAAAATACCGAGCGCGAGCACCACCATT
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MT240491|Imbabura|20

CTCAAGATTATATCCACATTACTGATGGCAGCTAAAATACCGAGCGCGAGCACCACCATT
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MT240492|Imbabura|20

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MT240493|Imbabura|20

CTCAAGATCATATCCACATTACTGGTGGCAGCTAAAATACCAAGCGCGAGCACCACCATT
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MT240494|Pichincha|2

CTCAAGATCATATCCACATTACTAGTTGCAGCTAAAATACCAAGCGCGAGTACCACCATT
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MT240495|Pichincha|2

CTCAAGACCATATCCGCACTACTGGTGGCTGCCAAAATACCAAGTGCAAGCACCACGATT
_L_K_T_I_S_A_L_L_V_A_A_K_I_P_S_A_S_T_T_I_

MT240496|Tungurahua|

CTCAAGGTTATATCCACATTACTGGTGGCAGCTAAAATACCAAGCGCGAGCACCACCATT
_L_K_V_I_S_T_L_L_V_A_A_K_I_P_S_A_S_T_T_I_

MT240497|Tungurahua|

CTCAAAACCATATCCACATTACTGGTGGCAGCTAAAATACCGAGCGCAAGCACCACCATT
_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_A_S_T_T_I_

MT240498|Tungurahua|

CTCAAGATCATATCCTCACTACTGGTGGCAGCCAAAGTACCAAGCGTGAGTACCACCATT
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MT240499|Tungurahua|

CTCAAGATCATATCCTCACTACTGGTGGCAGCCAAAGTACCAAGCGTGAGTACCACCATT
_L_K_I_I_S_S_L_L_V_A_A_K_V_P_S_V_S_T_T_I_

MT240500|Tungurahua|

CTCAAGATCATATCCACATTACTGGTGGCAGCCAAAATACCAAGCGCGAGCACCACCATT
_L_K_I_I_S_T_L_L_V_A_A_K_I_P_S_A_S_T_T_I_

MT240501|Tungurahua|

CTCAAGATCATATCCACATTACTGGTAGCAGCTAAAATACCAAGCGCAAGCACCACCATT
_L_K_I_I_S_T_L_L_V_A_A_K_I_P_S_A_S_T_T_I_

MT240502|Tungurahua|

CTTAAGGTTATATCCACATTAATGGTGGCAGCTAAGATACCGAGTGCGAGCACTACCATA

_L_K_V_I_S_T_L_M_V_A_A_K_I_P_S_A_S_T_T_I_

MT240503|Tungurahua|

CTCAAGATCATATCCACATTACTGGTGGCAGCTAAAATACCAAGCGCAAGCACCACCATT

_L_K_I_I_S_T_L_L_V_A_A_K_I_P_S_A_S_T_T_I_

MT240504|Tungurahua|

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_L_K_V_I_S_T_L_M_V_A_A_K_I_P_S_A_S_T_T_I_

MT240505|Azuay|2017|

CTCAAGACCATATCCACATTACTGGTGGCAGCAAAAATACCGAGTGGGAGCACCACCATT

_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_G_S_T_T_I_

MT240506|Azuay|2017|

CTCAAGACCATATCCACATTACTGGTGGCAGCAAAAATACCGAGTGGGAGCACCACCATT

_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_G_S_T_T_I_

MT240507|Loja|2017|B

CTCAAGACCATATCCACATTACTGGTGGCAGCAAAAATACCGAGTGGGAGCACCACCATT

_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_G_S_T_T_I_

MT240508|Loja|2017|B

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MT240509|Loja|2017|B

CTCAAGACCATATCCACATTACTGGTGGCAGCAAAAATACCGAGTGGGAGCACCACCATT

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MT240510|Loja|2017|B

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MT240511|Loja|2017|B

CTCAAGACCATATCCACATTACTGGTGGCAGCAAAAATACCGAGTGGGAGCACCACCATT

_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_G_S_T_T_I_

MT240512|Azuay|2016|

CTTAAGACCATATCCACACTACTGGTGGCAGCTAAGATACCGAGTACAAGCACCACCATT

_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_T_S_T_T_I_

MT240513|Azuay|2016|

CTTAAGACCATATCCACATTACTGGTGGCGGCCAAAATACCGAGTGCAAGTACCACCATT

_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_A_S_T_T_I_

MT240514|Azuay|2016|

CTTAAGACCATATCCACATTACTGGTGGCGGCCAAAATACCGAGTGCAAGTACCACCATT

_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_A_S_T_T_I_

MZ490607|Tungurahua|

CTCAAGGTTATATCCACATTACTGGTGGCAGCTAAAATACCAAGCGCGAGCACCACCATT
_L_K_V_I_S_T_L_L_V_A_A_K_I_P_S_A_S_T_T_I_

MZ490608|Tungurahua|

CTCAAGGTTATATCCACATTACTGGTGGCAGCTAAAATACCAAGCGCGAGCACCACCATT
_L_K_V_I_S_T_L_L_V_A_A_K_I_P_S_A_S_T_T_I_

MZ490609|Tungurahua|

CTCAAGACCATATCCACATTATTGGTGGCAGCTAAAATACCGAGCGTGAGCACCACCATT
_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_V_S_T_T_I_

MZ490610|Tungurahua|

CTCAAAACCATATCCACATTACTGGTAGCAGCTAAAATACCAAGCGCGAGCACCACCATT
_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_A_S_T_T_I_

MZ490611|Tungurahua|

CTCAAAACCATATCCACATTACTGGTAGCAGCTAAAATACCAAGCGCGAGCACCACCATT
_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_A_S_T_T_I_

MZ490612|Tungurahua|

CTTAGGACCATATCCACATTACTGGTGGCAGCTAAAGTACCGAGTGCAAGTACCACCATT
_L_R_T_I_S_T_L_L_V_A_A_K_V_P_S_A_S_T_T_I_

OL771197|Pichincha|2

CTCAAGACCATATCCACATTACTGGTGGCAGCAAAAATACCGAGTGCGAGCACCACCATT
_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_A_S_T_T_I_

OL771198|Pichincha|2

CTCAAGACCATATCCACATTACTGGTGGCAGCAAAAATACCGAGTGTGAGCACCACCATT
_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_V_S_T_T_I_

OL771199|Pichincha|2

CTCAAGACCATATCCACATTACTGGTGGCAGCAAAAATACCGAGCATGAGCACCACCATT
_L_K_T_I_S_T_L_L_V_A_A_K_I_P_S_M_S_T_T_I_

OL771200|Pichincha|2

CTCAAGACCATATCCGCACTACTGGTGGCTGCTAAAATACCAAGTACAAGCACCACCATT
_L_K_T_I_S_A_L_L_V_A_A_K_I_P_S_T_S_T_T_I_

| | | | |

MF978248|Pichincha|2

GTTGCAATGGACTTGGTCAACTTCTGTTATGACAATGGGTCTAGTGTGTACACGGTGATT 240
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

MT240490|Imbabura|20

GTTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGCGTACACGGTGATT
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_A_Y_T_V_I_

MT240491|Imbabura|20

GTTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGCGTACACGGTGATT
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_A_Y_T_V_I_

MT240492|Imbabura|20

GTTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGCGTACACGGTGATT
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_A_Y_T_V_I_

MT240493|Imbabura|20

GTTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGCGTACACGGTGATT
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_A_Y_T_V_I_

MT240494|Pichincha|2

GCTGCAATGGACTTGGTTAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTGATT
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

MT240495|Pichincha|2

GCTGCCATGGACTTGGTCAACTTTTGCTATGATAATGGATCAAGTGTGTACACAGCAATC
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_A_I_

MT240496|Tungurahua|

GCTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTGATT
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

MT240497|Tungurahua|

GTTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTGATT
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

MT240498|Tungurahua|

GCTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTATACGGTGATT
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

MT240499|Tungurahua|

GCTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTATACGGTGATT
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

MT240500|Tungurahua|

GCTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTGATT
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

MT240501|Tungurahua|

GCTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTGATT
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

MT240502|Tungurahua|

GTTGCAATGGATTTGGTTAACTTCTGCTATGACAATGGATCCAGCGTGTACACAACAGTT
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_T_V_

MT240503|Tungurahua|

GCTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTGATT

_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_
MT240504|Tungurahua|
GTTGCAATGGATTGGTTAACTTCTGCTATGACAATGGATCCAGCGTGTACACAACAATT
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_T_I_
MT240505|Azuay|2017|
GTTGCAATGGACTTGGTTAACTTCTGCTATGACAATGGGTCCAGTGTGTATACGGCGATC
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_A_I_
MT240506|Azuay|2017|
GTTGCAATGGACTTGGTTAACTTCTGCTATGACAATGGGTCCAGTGTGTATACGGCGATC
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_A_I_
MT240507|Loja|2017|B
GTTGCAATGGACTTGGTTAACTTCTGCTATGACAATGGGTCCAGTGTGTATACGGCGATC
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_A_I_
MT240508|Loja|2017|B
GTTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTGATT
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_
MT240509|Loja|2017|B
GTTGCAATGGACTTGGTTAACTTCTGCTATGACAATGGGTCCAGTGTGTATACGGCGATC
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_A_I_
MT240510|Loja|2017|B
GTTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTGATT
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_
MT240511|Loja|2017|B
GTTGCAATGGACTTGGTTAACTTCTGCTATGACAATGGGTCCAGTGTGTATACGGCGATC
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_A_I_
MT240512|Azuay|2016|
GCCGCAATGGATTGGTCAACTTCTGCTATGACAACGGATCCAGTGTGTACACGGTAGTT
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_V_
MT240513|Azuay|2016|
GCTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTAATT
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_
MT240514|Azuay|2016|
GCTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTAATT
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_
MZ490607|Tungurahua|
GCTGCCATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTGATT
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

MZ490608|Tungurahua|

GCTGCCATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTGATT
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

MZ490609|Tungurahua|

GTAGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGCGTACACGGTGATT
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_A_Y_T_V_I_

MZ490610|Tungurahua|

GCTGCAATGGACTTGGTCAACTTCTGCTATGACAACGGGTCCAGTGTGTACACGGTGATC
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

MZ490611|Tungurahua|

GCTGCAATGGACTTGGTCAACTTCTGCTATGACAACGGGTCCAGTGTGTACACGGTGATC
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

MZ490612|Tungurahua|

GCTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGATCCAGTGTGTACACAGCAATT
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_A_I_

OL771197|Pichincha|2

GTTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTGATT
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

OL771198|Pichincha|2

GTTGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGTGTACACGGTGATT
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_V_I_

OL771199|Pichincha|2

GTGGCAATGGACTTGGTCAACTTCTGCTATGACAATGGGTCCAGTGCGTACACGGTGATT
_V_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_A_Y_T_V_I_

OL771200|Pichincha|2

GCTGCTATGGATTGGTCAACTTTTGCTACGATAATGGATCAAGCGTTTACACAGCAATT
_A_A_M_D_L_V_N_F_C_Y_D_N_G_S_S_V_Y_T_A_I_

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MF978248|Pichincha|2

TCTGGTGAATCCTCAATCACTGGCATCACTCTGGCCCAGATTGCAAGTATTGTCAAGGCT 300
_S_G_E_S_S_I_T_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MT240490|Imbabura|20

TCTGGTGAATCCTCAGTCACTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCT
_S_G_E_S_S_V_T_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240491|Imbabura|20

TCTGGTGAATCCTCAGTCACTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCT
_S_G_E_S_S_V_T_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240492|Imbabura|20

TCTGGTGAATCCTCAGTCACTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAAGCT
_S_G_E_S_S_V_T_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240493|Imbabura|20

TCTGGTGAATCCTCAGTCACTGGCGTCACTCTGGCCCAGATTGCAAGTATTGTCAAGGCT
_S_G_E_S_S_V_T_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240494|Pichincha|2

TCTGGTGAATCATCAATTACTGGCATCACTCTGGCCCAGATTGCAAGCATTGTTAAGGCT
_S_G_E_S_S_I_T_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MT240495|Pichincha|2

TCCGGTGAATCCTCAGTCGCTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCC
_S_G_E_S_S_V_A_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240496|Tungurahua|

TCTGGTGAATCCTCAGTCACTGGCATCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCT
_S_G_E_S_S_V_T_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MT240497|Tungurahua|

TCTGGTGAATCTTCAGTCACTGGCGTCACTCTGGCCCAGGTTGCAAGCATAGTCAAGGCT
_S_G_E_S_S_V_T_G_V_T_L_A_Q_V_A_S_I_V_K_A_

MT240498|Tungurahua|

TCTGGTGAATCCTCAGTCACTGGCATCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCT
_S_G_E_S_S_V_T_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MT240499|Tungurahua|

TCTGGTGAATCCTCAGTCCCTGGCATCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCT
_S_G_E_S_S_V_P_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MT240500|Tungurahua|

TCTGGTGAATCCTCAATCACTGGCATCACTTTGGCCCAGATTGCAAGCATTGTCAAAGCT
_S_G_E_S_S_I_T_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MT240501|Tungurahua|

TCTGGTGAATCCTCAATCACTGGCATCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCT
_S_G_E_S_S_I_T_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MT240502|Tungurahua|

TCGGGTGAATCCTCAGTCCCAGGCGTCACTCTGGCCCAGATTGCAAGCATTGTTAAGGCT
_S_G_E_S_S_V_P_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240503|Tungurahua|

TCTGGTGAATCCTCAATCACTGGCATCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCT
_S_G_E_S_S_I_T_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MT240504|Tungurahua|

TCGGGTGAATCCTCAGTCACAGGCGTCACTCTGGCCCAGATTGCAAGCATTGTTAAGGCT

_S_G_E_S_S_V_T_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240505|Azuay|2017|

TCTGGTGAATCCTCAATCGCTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCC

_S_G_E_S_S_I_A_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240506|Azuay|2017|

TCTGGTGAATCCTCAATCGCTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCC

_S_G_E_S_S_I_A_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240507|Loja|2017|B

TCTGGTGAATCCTCAATCGCTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCC

_S_G_E_S_S_I_A_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240508|Loja|2017|B

TCTGGTGAATCCTCAATCGCTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCC

_S_G_E_S_S_I_A_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240509|Loja|2017|B

TCTGGTGAATCCTCAATCGCTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCC

_S_G_E_S_S_I_A_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240510|Loja|2017|B

TCTGGTGAATCCTCAATCGCTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCC

_S_G_E_S_S_I_A_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240511|Loja|2017|B

TCTGGTGAATCCTCAATCGCTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCC

_S_G_E_S_S_I_A_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240512|Azuay|2016|

TCCGGTGAATCCTCAGTTGCTGGCGTCACTTTGGCCCAAATTGCAAGCATTGTCAAGGCT

_S_G_E_S_S_V_A_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MT240513|Azuay|2016|

TCCGGAGAATCTTCAGTTACCGGCATCACCTGGCTCAGATTGCTAGCATTGTCAAGGCT

_S_G_E_S_S_V_T_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MT240514|Azuay|2016|

TCCGGAGAATCTTCAGTTACCGGCATCACCTGGCTCAGATTGCTAGCATTGTCAAGGCT

_S_G_E_S_S_V_T_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MZ490607|Tungurahua|

TCTGGTGAATCCTCAGTCACTGGCATCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCT

_S_G_E_S_S_V_T_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MZ490608|Tungurahua|

TCTGGTGAATCCTCAGTCACTGGCATCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCT

_S_G_E_S_S_V_T_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MZ490609|Tungurahua|

TCTGGCGAATCCTCAGTCACTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCT
_S_G_E_S_S_V_T_G_V_T_L_A_Q_I_A_S_I_V_K_A_

MZ490610|Tungurahua|

TCTGGTGAATCCTCAATCACTGGCATCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCT
_S_G_E_S_S_I_T_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MZ490611|Tungurahua|

TCTGGTGAATCCTCAATCACTGGCATCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCT
_S_G_E_S_S_I_T_G_I_T_L_A_Q_I_A_S_I_V_K_A_

MZ490612|Tungurahua|

TCTGGTGAATCCTCAGTCACTGGCGTTACTCTAGCCCAGATTGCAAGCATTGTCAAGGCT
_S_G_E_S_S_V_T_G_V_T_L_A_Q_I_A_S_I_V_K_A_

OL771197|Pichincha|2

TCTGGTGAATCCTCAATCGCTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCC
_S_G_E_S_S_I_A_G_V_T_L_A_Q_I_A_S_I_V_K_A_

OL771198|Pichincha|2

TCTGGTGAATCCTCAATCGCTGGCGTCACTCTGGCCCAGATTGCAAGCATTGTCAAGGCC
_S_G_E_S_S_I_A_G_V_T_L_A_Q_I_A_S_I_V_K_A_

OL771199|Pichincha|2

TCTGGTGAATCCTCAGTCACTGGCGTCACTCTGGCCCAGATTGCAAGTATTGTCAAGGCT
_S_G_E_S_S_V_T_G_V_T_L_A_Q_I_A_S_I_V_K_A_

OL771200|Pichincha|2

TCTGGTGAAAGCTCAGTCGCTGGCGTTACCCTGGCCCAGATTGCAAGCATTGTCAAGGCC
_S_G_E_S_S_V_A_G_V_T_L_A_Q_I_A_S_I_V_K_A_

| | | | |

MF978248|Pichincha|2

TCCGGCACTTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG 360
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240490|Imbabura|20

TCCGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240491|Imbabura|20

TCCGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240492|Imbabura|20

TCCGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240493|Imbabura|20

TCCGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240494|Pichincha|2

TCCGGCACTTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGA
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240495|Pichincha|2

TCCGGCACCTCACTGCGAAAATTCTGTGCGATTCTTTGCACCAGTGATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240496|Tungurahua|

TCCGGCACTTCACTGCGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240497|Tungurahua|

TCCGGAACCTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240498|Tungurahua|

TCCGGCACTTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240499|Tungurahua|

TCCGGCACTTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240500|Tungurahua|

TCCGGCACTTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTGATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240501|Tungurahua|

TCCGGCACTTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTGATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240502|Tungurahua|

TCCGGCACCTCACTACGAAAATTTTGCCGATTCTTTGCACCAGTGATTTGGAATCTGAGA
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240503|Tungurahua|

TCCGGCACTTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240504|Tungurahua|

TCCGGCACCTCACTACGAAAATTTTGCCGATTCTTTGCACCAGTGATTTGGAATCTGAGA
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240505|Azuay|2017|

TCCGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCGGTAATTTGGAACCTGAGA

_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240506|Azuay|2017|

TCCGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCGGTAATTTGGAACCTGAGA

_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240507|Loja|2017|B

TCCGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCGGTAATTTGGAACCTGAGA

_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240508|Loja|2017|B

TCTGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCGGTAATTTGGAACCTGAGA

_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240509|Loja|2017|B

TCCGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCGGTAATTTGGAACCTGAGA

_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240510|Loja|2017|B

TCTGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCGGTAATTTGGAACCTGAGA

_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240511|Loja|2017|B

TCCGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCGGTAATTTGGAACCTGAGA

_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240512|Azuay|2016|

TCCGGCACCTCACTGCGAAAATTCTGCCGATTCTTTGCACCAGTGATCTGGAACCTGAGG

_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240513|Azuay|2016|

TCAGGCACCTCATTACGAAAATTCTGCCGATTCTTTGCACCAGTGATCTGGAACCTGAGG

_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MT240514|Azuay|2016|

TCAGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTGATTTGGAACCTGAGG

_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MZ490607|Tungurahua|

TCCGGCACTTCACTGCGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG

_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MZ490608|Tungurahua|

TCCGGCACTTCACTGCGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG

_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MZ490609|Tungurahua|

TCCGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGA

_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MZ490610|Tungurahua|

TCCGGCACTTCGCTACGAAAATTTTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MZ490611|Tungurahua|

TCCGGCACTTCGCTACGAAAATTTTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

MZ490612|Tungurahua|

TCTGGCACCTCACTACGAAAATTCTGCCGATTCTTCGCACCAGTGATCTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

OL771197|Pichincha|2

TCCGGCACCTCACTACGAAAATTCTGCCGATTCTTCGCACCGGTAATTTGGAACCTGAGA
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

OL771198|Pichincha|2

TCCGGCACCTCACTACGAAAATTCTGCCGATTCTTCGCACCGGTAATTTGGAACCTGAGA
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

OL771199|Pichincha|2

TCCGGCACCTCACTACGAAAATTCTGCCGATTCTTTGCACCAGTAATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

OL771200|Pichincha|2

TCCGGCACTTCACTGCGAAAATTCTGTGATTCTTTGCACCAGTGATTTGGAACCTGAGG
_S_G_T_S_L_R_K_F_C_R_F_F_A_P_V_I_W_N_L_R_

| | | | |

MF978248|Pichincha|2

ACTGACAAAGTACCCCCGCAAACCTGGGAGAGCGCTGGGTACAAACCAACTGAGAAATTC 420
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MT240490|Imbabura|20

ACTGACAAAGTACCCCCGCAAACCTGGGAGAGTGCTGGGTTCAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

MT240491|Imbabura|20

ACTGACAAAGTACCCCCGCAAACCTGGGAGAGTGCTGGGTTCAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

MT240492|Imbabura|20

ACTGACAAAGTACCCCCGCAAACCTGGGAGAGTGCTGGGTTCAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

MT240493|Imbabura|20

ACTGACAAAGTACCCCCGCAAACCTGGGAGAGTGCTGGGTTCAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

MT240494|Pichincha|2

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTATAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MT240495|Pichincha|2

ACTGATAAAGTGCCCCCGCAAACCTGGGAGAGTGCTGGGTACAAACCAACTGAAAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MT240496|Tungurahua|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTACAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MT240497|Tungurahua|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTTTAAACCAAATGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_N_E_K_F_

MT240498|Tungurahua|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTACAAACCAACTGAAAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MT240499|Tungurahua|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTACAAACCAACTGAAAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MT240500|Tungurahua|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTACAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MT240501|Tungurahua|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTATAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MT240502|Tungurahua|

ACTGACAAAGTGCCCCCGCAAACCTGGGAAAGTGCTGGGTACAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MT240503|Tungurahua|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTACAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MT240504|Tungurahua|

ACTGACAAAGTGCCCCCGCAAACCTGGGAAAGTGCTGGGTACAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MT240505|Azuay|2017|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTTTAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

MT240506|Azuay|2017|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTTTAAACCAACTGAGAAATTC

_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

MT240507|Loja|2017|B

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTTTAAACCAACTGAGAAATTC

_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

MT240508|Loja|2017|B

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTTTAAACCAACTGAGAAATTC

_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

MT240509|Loja|2017|B

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTTTAAACCAACTGAGAAATTC

_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

MT240510|Loja|2017|B

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTTTAAACCAACTGAGAAATTC

_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

MT240511|Loja|2017|B

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTTTAAACCAACTGAGAAATTC

_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

MT240512|Azuay|2016|

ACTGACAAAATACCCCCCGCGAACTGGGAGAGTGCTGGGTACAAACCAACTGAAAAATTC

_T_D_K_I_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MT240513|Azuay|2016|

ACTGACAAAGTGCCCCCGCCAACTGGGAGAGTGCTGGGTACAAACCAACCGAAAAATTC

_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MT240514|Azuay|2016|

ACTGACAAAGTGCCCCCGCCAACTGGGAGAGTGCTGGGTACAAACCAACCGAGAAATTC

_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MZ490607|Tungurahua|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTACAAACCAACTGAGAAATTC

_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MZ490608|Tungurahua|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTACAAACCGACTGAGAAATTC

_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MZ490609|Tungurahua|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTTCAAACCAAGTGAGAAATTC

_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_S_E_K_F_

MZ490610|Tungurahua|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTACAAACCAACTGAGAAATTT

_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MZ490611|Tungurahua|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTACAAACCAACTGAGAAATTT
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

MZ490612|Tungurahua|

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGTTACAAACCAACTGAAAAGTTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

OL771197|Pichincha|2

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTTTAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

OL771198|Pichincha|2

ACTGACAAAGTACCCCCCGCAAACCTGGGAGAGTGCTGGGTTTAAACCAACTGAGAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

OL771199|Pichincha|2

ACTGACAAAGTACCACCTGCAAACCTGGGAAAGTGCTGGGTTCAAACCAACTGAAAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_F_K_P_T_E_K_F_

OL771200|Pichincha|2

ACTGACAAAGTGCCCCCGCAAACCTGGGAGAGTGCTGGGTACAAACCAACTGAAAAATTC
_T_D_K_V_P_P_A_N_W_E_S_A_G_Y_K_P_T_E_K_F_

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MF978248|Pichincha|2

GCCGCCTTTGACTTCTTTGACGGCGTTGAGAACCCAGCAGCCATGCAACCACCGGGAGGG 480
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240490|Imbabura|20

GCCGCCTTTGACTTCTTTGACGGCGTTGAAAACCCAGCGGCCATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240491|Imbabura|20

GCCGCCTTTGACTTCTTTGACGGCGTTGAAAACCCAGCAGCCATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240492|Imbabura|20

GCCGCCTTTGACTTCTTTGACGGCGTTGAAAACCCAGCAGCCATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240493|Imbabura|20

GCCGCCTTTGACTTCTTTGACGGCGTCGAAAACCCAGCAGCCATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240494|Pichincha|2

GCCGCCTTTGACTTCTTTGACGGCGTTGAGAACCCAGCAGCTATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240495|Pichincha|2

GCCGCCTTTCGATTTTGTGACGGCGGTTGAAAACCCAGCAGCCATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_G_E_N_P_A_A_M_Q_P_P_G_G_

MT240496|Tungurahua|

GCCGCCTTTGACTTCTTTGACGGCGGTTGAAAACCCAGCTGCTATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240497|Tungurahua|

GCCGCCTTTGACTTCTTTGACGGGTGTCGAGAACCCAGCAGCCATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240498|Tungurahua|

GCCGCCTTTGACTTCTTTGACGGCGGTTGAGAACCCAGCAGCCATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240499|Tungurahua|

GCCGCCTTTGACTTCTTTGACGGCGGTTGAGAACCCAGCAGCCATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240500|Tungurahua|

GCCGCCTTTGACTTCTTTGACGGCGGTTGAAAACCCAGCAGCCATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240501|Tungurahua|

GCCGCCTTTGACTTCTTTGACGGCGGTTGAGAACCCAGCAGCCATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240502|Tungurahua|

GCCGCCTTTGACTTCTTTGACGGCGGTTGAAAACCCAGCAGCCATGCAACCACCGGGAGGA
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240503|Tungurahua|

GCCGCCTTTGACTTCTTTGACGGCGGTTGAGAACCCAGCAGCCATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240504|Tungurahua|

GCCGCCTTTGACTTCTTTGACGGCGGTTGAAAACCCAGCAGCCATGCAACCACCGGGAGGA
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240505|Azuay|2017|

GCCGCCTTTGACTTCTTTGACGGCGGTTGAGAACCCAGCAGCCATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240506|Azuay|2017|

GCCGCCTTTGACTTCTTTGACGGCGGTTGAGAACCCAGCAGCCATGCAACCACCGGGAGGG
_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

MT240507|Loja|2017|B

GCCGCCTTTGACTTCTTTGACGGCGGTTGAGAACCCAGCAGCCATGCAACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_
MT240508|Loja|2017|B
GCCGCCTTTGACTTCTTTGACGGCGTTGAGAACCCAGCAGCCATGCAACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_
MT240509|Loja|2017|B
GCCGCCTTTGACTTCTTTGACGGCGTTGAGAACCCAGCAGCCATGCAACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_
MT240510|Loja|2017|B
GCCGCCTTTGACTTCTTTGACGGCGTTGAGAACCCAGCAGCCATGCAACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_
MT240511|Loja|2017|B
GCCGCCTTTGACTTCTTTGACGGCGTTGAGAACCCAGCAGCCATGCAACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_
MT240512|Azuay|2016|
GCCGCCTTTGACTTCTTTGACGGCGTTGAAAACCCAGCAGCCATGCAACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_
MT240513|Azuay|2016|
GCCGCCTTTGATTTCTTCGACGGCGTTGAAAACCCAGCCGCCATGCAACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_
MT240514|Azuay|2016|
GCCGCCTTTGATTTCTTCGACGGCGTTGAAAACCCAGCCGCCATGCAACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_
MZ490607|Tungurahua|
GCCGCCTTTGACTTCTTTGACGGCGTTGAAAACCCAGCAGCTATGCAACCACCGGGAGGA

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_
MZ490608|Tungurahua|
GCCGCCTTTGACTTCTTTGACGGCGTTGAAAACCCAGCGGCTATGCAACCACCGGGAGGA

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_
MZ490609|Tungurahua|
GCCGCCTTTGACTTCTTTGACGGCGTTGAAAACCCAGCAGCCATGCAACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_
MZ490610|Tungurahua|
GCCGCCTTTGACTTCTTTGACGGTGTGAGAACCCAGCAGCCATGCGACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_R_P_P_G_G_
MZ490611|Tungurahua|
GCCGCCTTTGACTTCTTTGACGGTGTGAGAACCCAGCAGCCATGCGACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_R_P_P_G_G_

MZ490612|Tungurahua|

GCCGCCTTCGACTTCTTTGACGGCGTTGAAAACCCAGCAGCCATGCAACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

OL771197|Pichincha|2

GCCGCCTTTGACTTCTTTGACGGCGTTGAGAACCCAGCAGCAATGCAACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

OL771198|Pichincha|2

GCCGCCTTTGACTTCTTTGACGGCGTTGAGAACCCAGCAGCCATGCAACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

OL771199|Pichincha|2

GCCGCCTTTGACTTCTTTGACGGCGTTGAAAATCCAGCAGCCATGCAACCACCGGGAGGG

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

OL771200|Pichincha|2

GCCGCCTTCGACTTCTTTGACGGCGTTGAAAACCCAGCAGCCATGCAACCACCGGGAGGA

_A_A_F_D_F_F_D_G_V_E_N_P_A_A_M_Q_P_P_G_G_

| | | | |

MF978248|Pichincha|2

CTCATTAGGTCTCCAAATCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC 540

_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240490|Imbabura|20

CTCATTAGGTCTCCAAATCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240491|Imbabura|20

CTTATTAGGTCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240492|Imbabura|20

CTTATTAGGTCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240493|Imbabura|20

CTCATTAGGTCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCAACAAACAGGTGAAC

_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240494|Pichincha|2

CTCATTAGATCTCCAAATCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240495|Pichincha|2

CTCATTCGGTCTCCAAACCAAGCTGAGAGGATAGCCAACCAAACCAATAAACAGGTGAAT

_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240496|Tungurahua|

CTCATTAGATCCCCAAATCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC
_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240497|Tungurahua|

CTCATTAGGTCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAGT
_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_S_

MT240498|Tungurahua|

CTCATTAGGTCCCCAAATCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC
_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240499|Tungurahua|

CTCATTAGGTCTCCAAATCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC
_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240500|Tungurahua|

CTCACTAGGTCTCCAAATCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC
_L_T_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240501|Tungurahua|

CTCATTAGGTCTCCAAATCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC
_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240502|Tungurahua|

CTCATCCGGTCCCCAAATCAAGCGGAGAGAATAGCCAACCAGACTAACAAACAAGTGAAC
_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240503|Tungurahua|

CTCATTAGGTCTCCAAATCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC
_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240504|Tungurahua|

CTCATCCGGTCCCCAAATCAAGCGGAGAGAATAGCCAACCAAACCTAACAAACAAGTGAAC
_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240505|Azuay|2017|

CTCATTAGGTCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC
_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240506|Azuay|2017|

CTCATTAGGTCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC
_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240507|Loja|2017|B

CTCATTAGGTCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC
_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240508|Loja|2017|B

CTCATTAGGTCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240509|Loja|2017|B

CTCATTAGGTCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240510|Loja|2017|B

CTCATAAGGTCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240511|Loja|2017|B

CTCATTAGGTCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240512|Azuay|2016|

CTCGTTCGGTCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACGAACAAACAGGTGAAC

L_V_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240513|Azuay|2016|

CTCATTCGGTCTCCAAACCAAGCGGAGAGAATAGCCAACCAAACCAACAAACAGGTGAAC

L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MT240514|Azuay|2016|

CTCATTCGGTCTCCAAACCAAGCGGAGAGAATAGCCAACCAAACCAACAAACAGGTGAAC

L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MZ490607|Tungurahua|

CTCATTAGATCCCCAAATCAAGCGGAGAGGATAGCCAATCAAACCTAACAAACAGGTGAAT

L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MZ490608|Tungurahua|

CTCATTAGATCCCCAAATCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MZ490609|Tungurahua|

CTCATTAGATCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MZ490610|Tungurahua|

CTCATTAGGTCTCCTAATCAGGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MZ490611|Tungurahua|

CTCATTAGGTCTCCTAATCAGGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

MZ490612|Tungurahua|

CTCATTCGGTCTCCAAACCAAGCTGAGAGGATCGCTAACCAAACCTAACAAACAGGTGAAC

L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

OL771197|Pichincha|2

CTCATTAGATTTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

_L_I_R_F_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

OL771198|Pichincha|2

CTCATTAGATTTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

_L_I_R_F_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

OL771199|Pichincha|2

CTCATCAGGTCTCCAAACCAAGCGGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

OL771200|Pichincha|2

CTCATTCGGTCTCCAAACCAAGCTGAGAGGATAGCCAACCAAACCTAACAAACAGGTGAAC

_L_I_R_S_P_N_Q_A_E_R_I_A_N_Q_T_N_K_Q_V_N_

| | | | |

MF978248|Pichincha|2

CTCTTCCAAACCGCAGCCCAGGGAAATAACTTGGCCTCCAACCTCTGCATTCATAACCAAG 600

_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240490|Imbabura|20

CTCTTCCAAACTGCAGCCCAGGGGAATAACTTGGCCTCCAACCTCAGCGTTCATAACCAAG

_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240491|Imbabura|20

CTCTTCCAAACTGCAGCCCAGGGGAATAACTTGGCCTCCAACCTCAGCGTTTATAACCAAG

_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240492|Imbabura|20

CTCTTCCAAACTGCAGCCCAGGGGAATAACCTTGGCCTCCAACCTCAGCGTTTATAACCAAG

_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240493|Imbabura|20

CTCTTCCAAACTGCAGCCCAGGGGAATAACTTGGCCTCCAACCTCAGCGTTTATAACCAAG

_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240494|Pichincha|2

CTCTTCCAAACCGCAGCCCAGGGGAATAACTTGGCCTCGAACTCTGCATTCATAACCAAG

_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240495|Pichincha|2

CTCTTCCAAACTGCAGCTCAGGGGAACAACCTTGGCTTCCAACCTCTGCATTCATAACCAAG

_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240496|Tungurahua|

CTCTTCCAAACCGCAGCCCAGGGGAATAACTTGGCCTCTAACTCCGCATTCATAACCAAG

_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240497|Tungurahua|

CTCTTCCAAACTGCAGCCCAGGGGAATAACTTTGGCCTCCAATCCGCATTCATAACCAAG
_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240498|Tungurahua|

CTCTTCCAAACCGCAGCCCAGGGAAATAACTTTGGCCTCCAATCCGCATTCATAACCAAG
_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240499|Tungurahua|

CTCTTCCAAACCGCAGCCCAGGGAAATAACTTTGGCCTCCAATCCGCATTCATAACCAAG
_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240500|Tungurahua|

CTCTTCCAAACCGCAGCTCAGGGAACTAACTTTGGCCTCCAATCCGCATTCATAACCAAG
_L_F_Q_T_A_A_Q_G_T_N_L_A_S_N_S_A_F_I_T_K_

MT240501|Tungurahua|

CTCTTCCAAACCGCAGCCCAGGGAAATAACTTTGGCCTCCAATCCGCATTCATAACCAAG
_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240502|Tungurahua|

CTCTTCCAAACTGCAGCTCAGGGGAACAACCTTTGGCCTCCAATCTGCATTCATAACCAAG
_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240503|Tungurahua|

CTCTTCCAAACCGCAGCCCAGGGAAATAACTTTGGCCTCCAATCCGCATTCATAACCAAG
_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240504|Tungurahua|

CTCTTCCAAACTGCAGCTCAGGGGAACAACCTTTGGCCTCCAATCTGCATTCATAACCAAG
_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240505|Azuay|2017|

CTCTTCCAAGCTGCTGCCCAGGGGAATAACTTTGGCTTCCAATCAGCATTCATAACCAAG
_L_F_Q_A_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240506|Azuay|2017|

CTCTTCCAAGCTGCTGCCCAGGGGAATAACTTTGGCTTCCAATCAGCATTCATAACCAAG
_L_F_Q_A_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240507|Loja|2017|B

CTCTTCCAAGCTGCTGCCCAGGGGAATAACTTTGGCTTCCAATCAGCATTCATAACCAAG
_L_F_Q_A_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240508|Loja|2017|B

CTCTTCCAAGCTGCTGCCCAGGGGAATAACTTTGGCTTCCAATCAGCATTCATAACCAAG
_L_F_Q_A_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240509|Loja|2017|B

CTCTTCCAAGCTGCTGCCCAGGGGAATAACTTTGGCTTCCAATCAGCATTCATAACCAAG

L_F_Q_A_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240510|Loja|2017|B

CTCTTCCAAGCTGCTGCCCAGGGGAATAACTTTGGCTTCCAACCTCAGCATTCATAACCAAG

L_F_Q_A_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240511|Loja|2017|B

CTCTTCCAAGCTGCTGCCCAGGGGAATAACTTTGGCTTCCAACCTCAGCATTCATAACCAAG

L_F_Q_A_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240512|Azuay|2016|

CTCTTCCAAACTGCAGCTCAGGGAAATAACTTTGGCATCCAACCTCTGCATTCATAACCAAG

L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240513|Azuay|2016|

CTCTTCCAAACTGCAGCCCAGGGGAATAACTTTGGCCTCCAATTCTGCATTCATAACCAAG

L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MT240514|Azuay|2016|

CTCTTCCAAACTGCAGCCCAGGGGAATAACTTTGGCCTCCAATTCTGCATTCATAACCAAG

L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MZ490607|Tungurahua|

CTCTTCCAAACCGCAGCCCAGGGGAATAACTTTGGCCTCTAACTCCGCATTCATAACCAAG

L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MZ490608|Tungurahua|

CTCTTCCAAACCGCAGCCCAGGGGAATAACTTTGGCCTCTAACTCCGCATTCATAACCAAG

L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MZ490609|Tungurahua|

CTCTTCCAAACCGCAGCTCAAGGGAATAACTTTGGCCTCCAACCTCCGCATTCATAACCAAG

L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MZ490610|Tungurahua|

CTCTTCCAAGCCGCAGCCCAGGGGAACAACCTTTGGCTTCTAACTCCGCATTCATAACTAAG

L_F_Q_A_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MZ490611|Tungurahua|

CTCTTCCAAACCGCAGCCCAGGGGAACAACCTTTGGCTTCTAACTCCGCATTCATAACCAAG

L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

MZ490612|Tungurahua|

CTCTTCCAAACTGCAGCTCAGGGGAACAACCTTTGGCCTCCAACCTCCGCATTCATAACCAAG

L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

OL771197|Pichincha|2

CTCTTCCAAGCTGCTGCCCAGGGGAATAACTTTGGCTTCCAACCTCAGCATTCATAACCAAG

L_F_Q_A_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

OL771198|Pichincha|2

CTCTTCCAAGCTGCTGCCCAGGGAAATAACTTGGCTTCCAACCTCAGCATTTCATAACCAAG

_L_F_Q_A_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

OL771199|Pichincha|2

CTCTTCCAAACCGCGGCCAGGGGAACAACCTTGGCCTCCAACCTCCGCATTTCATAACCAAG

_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

OL771200|Pichincha|2

CTCTTCCAAACTGCAGCTCAGGGGAACAACCTTGGCCTCCAACCTCCGCATTTATAACCAAG

_L_F_Q_T_A_A_Q_G_N_N_L_A_S_N_S_A_F_I_T_K_

| | | | |

MF978248|Pichincha|2 GGGCAGATTTCAACGTCCACTCCATCTATCCAGTTTCTCCCATCCCCAGAGTAG

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_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240490|Imbabura|20

GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240491|Imbabura|20

GGGCAGATCTCAACGTCCACACCATCCATCCAGTTTCTTCCATCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240492|Imbabura|20

GGGCAGATCTCAACGTCCACACCATCCATCCAGTTTCTTCCATCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240493|Imbabura|20

GGGCAGGTCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCGATTAG

_G_Q_V_S_T_S_T_P_S_I_Q_F_L_P_S_P_D_*_

MT240494|Pichincha|2 GGGCAAATTTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240495|Pichincha|2 GGGCAGATCTCAACTTCCACTCCATCCATCCAGTTTCTTCCATCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240496|Tungurahua|

GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCTCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240497|Tungurahua|

GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240498|Tungurahua|

GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240499|Tungurahua|

GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240500|Tungurahua|

GGGCAGATCTCAACGTCCACTCCATCCATTCAGTTTCTTCCATCCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240501|Tungurahua|

GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240502|Tungurahua|

GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCGTCTCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240503|Tungurahua|

GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240504|Tungurahua|

GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCGTCTCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240505|Azuay|2017|

GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240506|Azuay|2017|

GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240507|Loja|2017|B

GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240508|Loja|2017|B

GGGCAGATCTCAGCGTCCACTCCATCCATCCAGTTTCTTCCATCCCCCGAGTAG

_G_Q_I_S_A_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240509|Loja|2017|B

GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCCGAGTAG

_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240510|Loja|2017|B

GGGCAGATCTCAGCGTCCACTCCATCCATCCAGTTTCTTCCATCCCCCGAGTAG

_G_Q_I_S_A_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240511|Loja|2017|B
GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCGAGTAG
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240512|Azuay|2016|
GGGCAGATCTCAACGTCCACTCCATCCATTCAGTTTCTTCCATCTCCAGAATAG
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240513|Azuay|2016|
GGGCAGATCTCGACGTCCACTCCATCCATCCAGTTTCTTCCGTCTCCAGAGTAG
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MT240514|Azuay|2016|
GGGCAGATCTCGACGTCCACTCCATCCATCCAGTTTCTTCCGTCTCCAGAGTAG
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

MZ490607|Tungurahua| GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCA-----
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_-_-_-

MZ490608|Tungurahua| GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATC-----
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_#_-_-_-

MZ490609|Tungurahua| GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCC-----
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_#_-_-

MZ490610|Tungurahua| GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCAG-----
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_#_-

MZ490611|Tungurahua| GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCC-----
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_#_-_-

MZ490612|Tungurahua|
GGGCAGATCTCCACATCCACTCCATCCATCCAGTTTCTTCCATCCCCAGAATAG
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

OL771197|Pichincha|2 GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCAGAATAG
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

OL771198|Pichincha|2 GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCAGAATAA
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

OL771199|Pichincha|2 GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCAGAATAG
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

OL771200|Pichincha|2 GGGCAGATCTCAACGTCCACTCCATCCATCCAGTTTCTTCCATCCCCAGAATAG
_G_Q_I_S_T_S_T_P_S_I_Q_F_L_P_S_P_E_*_

Figure S1. Babaco mosaic virus coat proteins alignment with the overall structure.

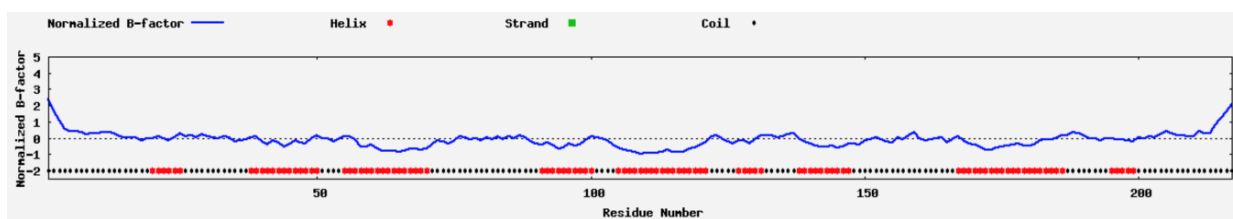


Figure S2. Normalized B-factor for the babaco mosaic virus coat protein model generated with I-TASSER.

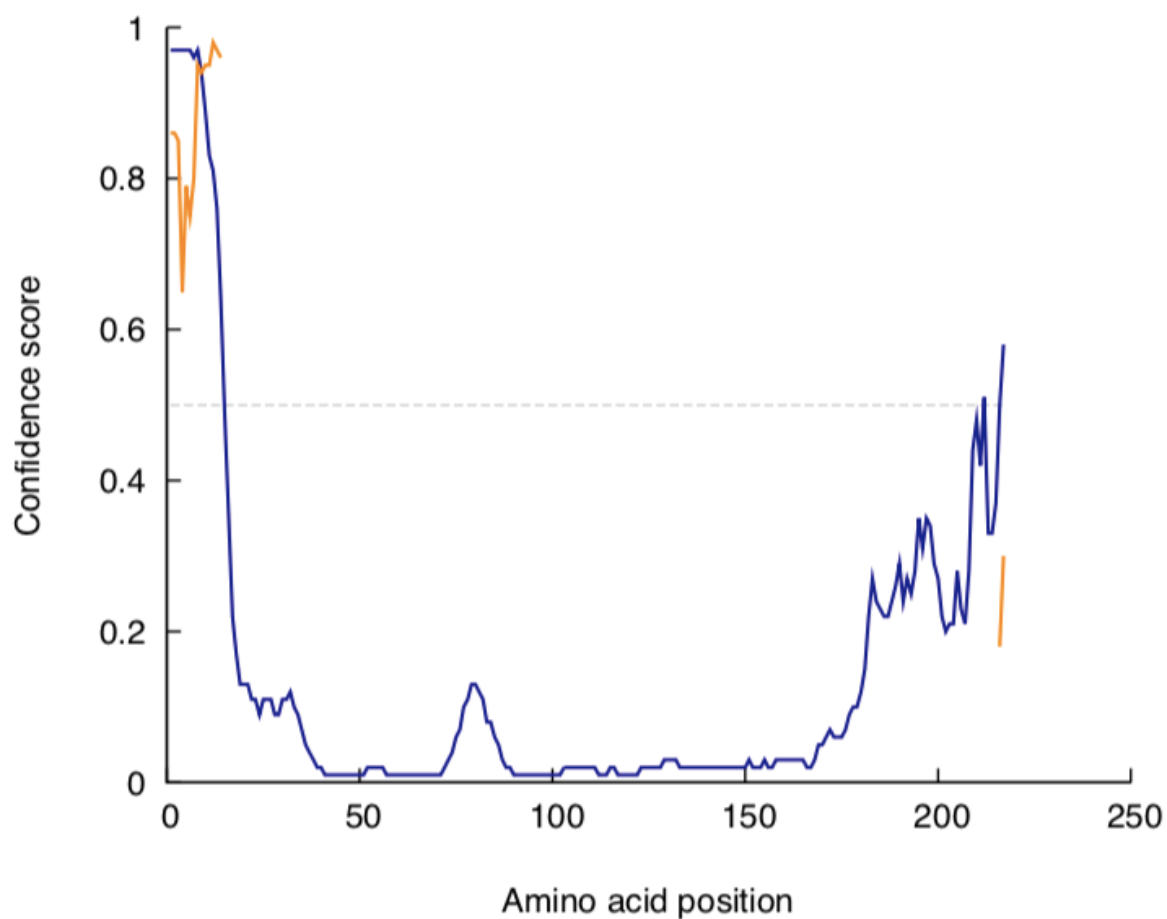
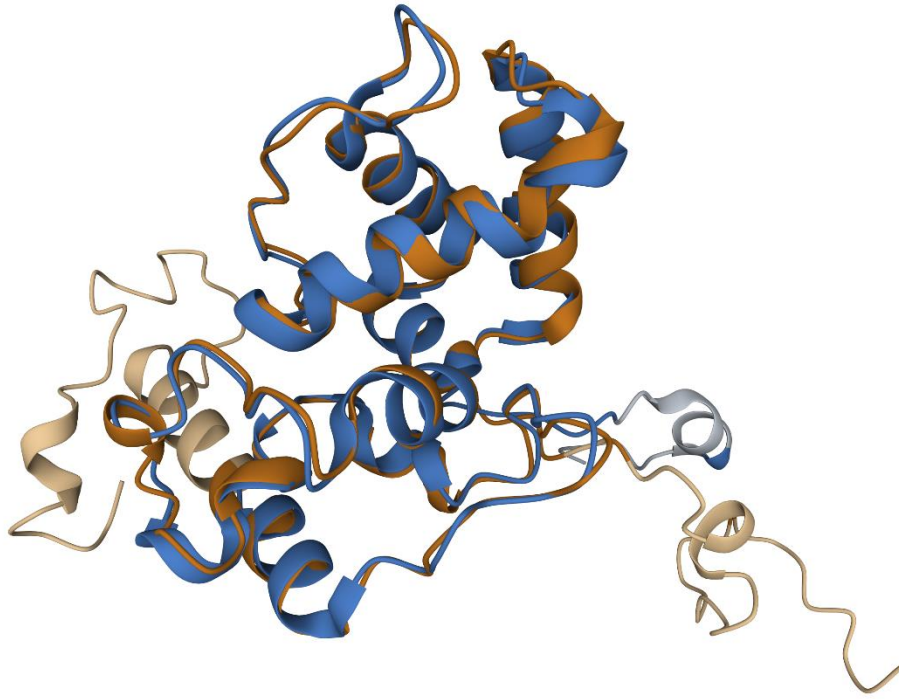


Figure S3. A probability estimate of the disorder per residue with DISOPRED for the coat protein of babaco mosaic virus. Both C and N terminals show prevalence of disorder, in this case an indicator of the flexibility of the BabMV CP.

A**B**

1	-----MSGKSESSN-----TGNSPFPNLTKETMASFNFKPSSNLLPS	37
11	IAFPAI-----TQEQMSSIK-----VD-PTSNNLLPS	35
38	EEELKTISTLLVAAKIPSASTTIVAMD LVNFCYDNGSSVYTVISGESSVT	87
36	QEQLKSVSTLMVAAKVPAASVTTVALELVNFCYDNGSSAYTTVTGPSSIP	85
88	GVTLAQIASIVKASGTS LRKFCRFFAPVIWNLRTDKVPPANWESAGYKPT	137
86	EISLAQLASIVKASGTS LRKFCRYFAPIIWNLRTDKMAPANWEASGYKPS	135
138	EKFAAFDFFDGVENPAAMQPPGGLIRSPNQAERIANQTNKQVNL FQTAAQ	187
136	AKFAAFDFFDGVENPAAMQPPSGLTRSPTQEERIANATN-----	174
188	GNNLASNSAFITKGQISTSTPSIQFLPSPE	217

Figure S4. Three-dimensional (A) and sequence (B) alignment between the coat proteins of babaco mosaic virus (orange) and papaya mosaic virus (blue).

Table S1. Structure quality assessment with ERRAT for the babaco mosaic virus coat protein

Protein	Overall Quality Factor before molecular dynamics	Overall Quality Factor after molecular dynamics (%)		
		Cluster 1	Cluster 2	Cluster 3
CP	76.442	95.939	97.980	97.423

Table S2. Structure quality assessment with Verify 3D for the babaco mosaic virus coat protein

Protein	3D-1D score ≥ 0.2 , before molecular dynamics (%)	3D-1D score ≥ 0.2 , after molecular dynamics (%)		
		Cluster 1	Cluster 2	Cluster 3
CP	55.700	95.939	97.980	97.423

Table S3. Structure quality assessment with ProCheck for the babaco mosaic virus coat protein. Ramachandran plot residue analysis

	Core (%)	Allowed (%)	Generous (%)	Disallowed (%)
Residues by class before MD	86.1	11.8	0	2.1
Residues by class after MD- Cluster 1	88.8	9.1	1.1	1.1
Residues by class after MD-Cluster 2	88.2	11.2	0	0.5
Residues by class after MD-Cluster 3	88.8	9.1	1.1	1.1

Table S4. Predicted linear epitopes of the coat proteins of BabMV and PapMV

BabMV					
N°	Start	End	Peptide	Number of residues	Score
1	1	26	MSGKSESSNTGNSPFPNLTKETMASF	26	0.869
2	185	217	AAQGNNLASNSAFITKGQISTSTPSIQFLPSPE	33	0.804
3	46	57	TLLVAAKIPSAS	12	0.720
4	81	90	SGESSVTGVT	10	0.660
5*	121	125	TDKVP	5	0.575
6*	128	139	NWESAGYKPTEK	12	0.528
7*	157	168	PPGGLIRSPNQA	12	0.515
PapMV					
N°	Start	End	Peptide	Number of residues	Score
1	11	28	IAFPAITQEQMSSIKVDP	18	0.884
2*	154	174	QPPSGLTRSPTQEERIANATN	21	0.660
3*	120	137	DKMAPANWEASGYKPSAK	18	0.659
4	73	91	SAYTTVTGPSSIPEISLAQ	19	0.630

*: common structural linear epitope region in BabMV and PapMV. Score is defined as a protrusion index value (PI) averaged over epitope residues.

Table S5. Predicted discontinuous epitopes of the coat proteins of BabMV and PapMV

BabMV			
N°	Residues	Number of residues	Score
1	A:M1, A:S2, A:G3, A:K4, A:S5, A:E6, A:S7, A:S8, A:N9, A:T10, A:G11, A:N12, A:S13, A:P14, A:F15, A:P16, A:N17, A:L18, A:T19, A:K20, A:E21, A:T22, A:M23, A:A24, A:S25, A:F26, A:N27	27	0.855
2	A:F182, A:A185, A:A186, A:Q187, A:G188, A:N189, A:N190, A:L191, A:A192, A:S193, A:N194, A:S195, A:A196, A:F197, A:I198, A:T199, A:K200, A:G201, A:Q202, A:I203, A:S204, A:T205, A:S206, A:T207, A:P208, A:S209, A:I210, A:Q211, A:F212, A:L213, A:P214, A:S215, A:P216, A:E217	34	0.797
3	A:K42, A:T43, A:T46, A:L47, A:L48, A:V49, A:A50, A:A51, A:K52, A:I53, A:P54, A:S55, A:A56, A:S57, A:I60, A:S81, A:G82, A:E83, A:S84, A:S85, A:V86, A:T87, A:G88, A:V89, A:T90, A:Q93	26	0.671

4*	A:T121, A:D122, A:K123, A:V124, A:P125, A:W129, A:E130, A:S131, A:A132, A:G133, A:Y134, A:K135, A:P136, A:T137, A:E138, A:K139, A:L161, A:I162, A:R163, A:S164, A:P165, A:N166, A:Q167, A:A168, A:I171	25	0.547
PapMV			
N°	Residues	Number of residues	Score
1*	A:D120, A:K121, A:M122, A:A123, A:P124, A:A125, A:N126, A:W127, A:E128, A:A129, A:S130, A:G131, A:Y132, A:K133, A:P134, A:S135, A:A136, A:K137, A:Q154, A:P155, A:P156, A:S157, A:G158, A:L159, A:T160, A:R161, A:S162, A:P163, A:T164, A:Q165, A:E166, A:E167, A:R168, A:I169, A:A170, A:A172, A:T173, A:N174	38	0.667
2	A:I11, A:A12, A:F13, A:P14, A:A15, A:I16, A:T17, A:Q18, A:E19, A:Q20, A:M21, A:S22, A:S23, A:I24, A:K25, A:V26, A:D27, A:P28	18	0.884
3	A:S73, A:A74, A:Y75	3	0.563
4	A:T76, A:T77, A:V78, A:T79, A:G80, A:P81, A:S82, A:S83, A:I84, A:P85, A:E86, A:I87, A:S88, A:A90, A:Q91, A:S94	16	0.652
5	A:T44, A:L45, A:V47, A:A48, A:A49, A:K50, A:V51, A:P52, A:A53, A:A54, A:S55	11	0.738
*: common structural region of discontinuous antibody epitope in BabMV and PapMV. Score is defined as a protrusion index value (PI) averaged over epitope residues.			