

Human Immunodeficiency Virus Type 1 nucleotide sequence unanimity alignments, Complete Pol Region. Highlighted regions indicate the nucleotide sequence encoding for the Protease, Reverse Transcriptase & Integrase enzymes.

-----Ribsomal slip region-----
 2085 | | 2159
 HXB2 | TTT TTT AGG GAA GAT CTG GCC TTC CTA CAA GGG AAG GCC AGG GAA TTT TCT TCA GAG CAG ACC AGA GCC AAC AGC
 MXHIV00086 | *** ** *
 MXHIV00327 | *** ** *
 MXHIV00395 | *** ** *
 MXHIV00401 | *** ** *
 MXHIV00422 | *** ** *

-----Ribsomal slip region-----
 2160 | | 2231
 HXB2 | CCC ACC AGA AGA GAG CTT CAG GTC TGG GGT AGA GAC AAC ... AAC TCC CCC TCA GAA GCA GGA GCC GAT AGA CAA
 MXHIV00086 | --- --- --- --- --- --- -T --- -A G-- -T --- ... --- -T- --- -A- ---
 MXHIV00327 | --- --- --- --- --- --- -A G-- -T --- ... --- -T- --- -A- ---
 MXHIV00395 | --- --- --- G-- --- TG- --- A A-T --- -A G-- --- ... --- -T- --- --- -G -A- A-- G-- ---
 MXHIV00401 | --- --- --- --- --- --- -T --- -A --- --- AAC --- -T- --- -A- --- -GG -TC --- ---
 MXHIV00422 | --- --- --- --- --- --- -T --- -A G-- -T --- ... --- -A- -T- --- --- -A- ---

-----Protease (p15)-----
 <-----Terminal domain-----> <-----Core domain----->
 2232 | | 2253 | | 2303
 HXB2 | GGA ACT GTA ... TCC TTT AAC TTC CCT CAG GTC ACT CTT TGG CAA CGA CCC CTC GTC ACA ATA AAG ATA GGG GGG
 MXHIV00086 | --- G-- A-- ... --- -C- --- C-- --- -A A-- --- -G --- --- G-- --- -A ---
 MXHIV00327 | --- G-- A-- ... --- --- G-- C-- --- -A A-- --- -G --- --- G-- --- -A ---
 MXHIV00395 | --- GGG --- TCC --- --- -G- --- --- A --- --- --- --- --- A-T --- --- -C- ---
 MXHIV00401 | --- --- ... --- --- TT- --- --- -A A-- --- --- --- -A --- --- --- --- -A
 MXHIV00422 | --- G-- A-- ... --- --- G-- C-- --- --- -A A-- --- -G --- --- --- --- G-- -A --- -A ---

-----Protease (p15)-----
 -----Core domain----- <-----Flat domain----->
 2304 | | 2378
 HXB2 | CAA CTA AAG GAA GCT CTA TTA GAT ACA GGA GCA GAT GAT ACA GTA TTA GAA GAA ATG AGT TTG CCA GGA AGA TGG
 MXHIV00086 | --- --- --- --- --- G --- --- --- --- --- --- --- --- -A -A --- --- ---
 MXHIV00327 | --- --- --- --- --- --- --- --- --- --- --- --- --- --- -A -A --- --- ---
 MXHIV00395 | --- --- --- --- --- C-- --- --- --- --- --- --- --- --- -A --- --- -G --- ---
 MXHIV00401 | --- --- --- --- --- --- --- --- --- --- --- -G --- --- --- --- -A --- TT- --- ---
 MXHIV00422 | --- --- --- --- --- --- --- --- --- --- --- --- --- --- -A -A --- --- ---

-----Protease (p15)-----
 -----Flat domain----- <-----Core domain----->
 2379 | | 2453
 HXB2 | AAA CCA AAA ATG ATA GGG GGA ATT GGA GGT TTT ATC AAA GTA AGA CAG TAT GAT CAG ATA CTC ATA GAA ATC TGT
 MXHIV00086 | --- --- --- --- --- A --- --- --- --- --- --- --- --- -G --- --- G-- --- -C- --- --- -C
 MXHIV00327 | --- --- --- --- --- --- --- --- --- --- --- --- --- --- -G --- --- -A G-A G-- --- -C- --- --- -C
 MXHIV00395 | --- --- --- --- --- --- --- --- --- --- --- --- --- --- -G --- --- -A G-A G-- --- -C- --- --- -C
 MXHIV00401 | --- --- --- --- --- --- --- --- --- --- --- --- --- --- -G --- --- -A G-A G-- --- -C- --- --- -C
 MXHIV00422 | T-- --- --- --- --- A-- --- --- --- --- --- --- --- --- -G --- --- -A G-A G-- --- -C- --- --- -C

-----Protease (p15)-----
 -----Core domain----- <-----Terminal domain----->
 2454 | | 2528
 HXB2 | GGA CAT AAA GCT ATA GGT ACA GTA TTA GTA GGA CCT ACA CCT GTC AAC ATA ATT GGA AGA AAT CTG TTG ACT CAG
 MXHIV00086 | --- --- --- A-- G-- --- --- A-- --- --- --- --- --- --- --- --- -A -A --- --- -A
 MXHIV00327 | --- --- --- A-- --- --- --- A-- --- --- --- --- --- --- --- --- -A -A --- --- -A
 MXHIV00395 | -G --- --- --- --- --- -G --- --- -G --- --- --- --- --- --- --- --- -R --- ---
 MXHIV00401 | --- --- --- G-- --- --- --- --- --- --- --- --- --- --- --- --- --- -R --- ---
 MXHIV00422 | --- --- --- A-- --- --- --- A-- --- --- --- --- --- --- --- --- -R --- ---

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----- Protease (p15) ----->|----- Reverse transcriptase (p66, p51) -----|
-----Terminal domain----->|p66 domain and p51 domain start
2529 2549|-----Finger subdomain-----|2603
|
HXB2 ATT GGT TGC ACT TTA AAT TTT CCC ATT AGC CCT ATT GAG ACT GTA CCA GTA AAA TTA AAG CCA GGA ATG GAT GGC
MXHIV00086 ---C--T-----R-----
MXHIV00327 ---C--T-----A-----R-----
MXHIV00395 M-----Y-----A-----Y-----R-----
MXHIV00401 ---W--Y-----A-----R-----
MXHIV00422 ---M--Y-----A-----R-----

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----- Reverse transcriptase (p66, p51) -----|
-----Finger subdomain-----|
2604 2678|
|
HXB2 CCA AAA GTT AAA CAA TGG CCA TTG ACA GAA GAA AAA ATA AAA GCA TTA GTA GAA ATT TGT ACA GAG ATG GAA AAG
MXHIV00086 ---A-----G-----A-----C-----A-----
MXHIV00327 ---A-----G-----A-----C-----A-----
MXHIV00395 ---A-----G-----A-----C-----A-----
MXHIV00401 ---K-----C-----A-----A-----A-----
MXHIV00422 ---A-----G-----C-----A-----A-----

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----- Reverse transcriptase (p66, p51) -----|
-----Finger subdomain-----|
2679 2753|
|
HXB2 GAA GGG AAA ATT TCA AAA ATT GGG CCT GAA AAT CCA TAC AAT ACT CCA GTA TTT GCC ATA AAG AAA AAA GAC AGT
MXHIV00086 ---A-----G-----C-----A-----A-----T-----
MXHIV00327 ---A-----G-----C-----A-----A-----T-----
MXHIV00395 ---A-----G-----C-----A-----A-----T-----
MXHIV00401 ---A-----GG-----T-----A-----A-----
MXHIV00422 ---A-----G-----C-----A-----A-----

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----- Reverse transcriptase (p66, p51) ----->|-----Palm subdomain-----|
-----Finger subdomain----->|2828
2754|
|
HXB2 ACT AAA TGG AGA AAA TTA GTA GAT TTC AGA GAA CTT AAT AAG AGA ACT CAA GAC TTC TGG GAA GTT CAA TTA GGA
MXHIV00086 ---C-----T-----C-----A-----G-----G-----G-----
MXHIV00327 ---C-----T-----C-----A-----G-----G-----G-----
MXHIV00395 ---C-----T-----C-----A-----G-----G-----G-----
MXHIV00401 ---C-----T-----C-----A-----G-----G-----G-----
MXHIV00422 ---C-----T-----C-----A-----G-----G-----G-----

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----- Reverse transcriptase (p66, p51) ----->|
-----Palm subdomain----->|2903
2829|
|
HXB2 ATA CCA CAT CCC GCA GGG TTA AAA AAG AAA AAA TCA GTA ACA GTA CTG GAT GTG GGT GAT GCA TAT TTT TCA GTT
MXHIV00086 ---T-----T-----C-----G-----G-----G-----G-----C-----
MXHIV00327 ---C-----A-----C-----G-----G-----G-----G-----C-----
MXHIV00395 ---C-----A-----C-----G-----G-----G-----G-----C-----
MXHIV00401 ---C-----A-----C-----G-----G-----G-----G-----C-----
MXHIV00422 ---C-----A-----C-----G-----G-----G-----G-----C-----

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----- Reverse transcriptase (p66, p51) -----|
-----Finger subdomain-----|
2904 2978|
|
HXB2 CCC TTA GAT GAA GAC TTC AGG AAG TAT ACT GCA TTT ACC ATA CCT AGT ATA AAC AAT GAG ACA CCA GGG ATT AGA
MXHIV00086 ---A--G-----G-----C-----G-----G-----G-----C-----
MXHIV00327 ---CC-----G-----C-----G-----G-----G-----G-----
MXHIV00395 ---A-----A-----C-----C-----C-----A-----G-----
MXHIV00401 ---A-----A-----T-----C-----C-----C-----C-----
MXHIV00422 ---CC-----G-----C-----G-----G-----G-----G-----

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----- Reverse transcriptase (p66, p51) -----|
-----Finger subdomain-----|
2979 3053|
|
HXB2 TAT CAG TAC AAT GTG CTT CCA CAG GGA TGG AAA GGA TCA CCA GCA ATA TTC CAA AGT AGC ATG ACA AAA ATC TTA
MXHIV00086 ---A-----A-----A-----G-----A-----A-----G-----
MXHIV00327 ---A-----A-----A-----G-----A-----A-----G-----
MXHIV00395 ---A-----A-----A-----G-----A-----A-----G-----
MXHIV00401 ---A-----A-----A-----T-----C-----C-----C-----
MXHIV00422 ---A-----A-----A-----G-----A-----A-----G-----

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----- Reverse transcriptase (p66, p51) -----
-----Connection subdomain-----
3579                                                                                                     3653
|
HXB2
MXHIV00086 GAG CCA TTT AAA AAT CTG AAA ACA GGA AAA TAT GCA AGA ATG AGG GGT GCC CAC ACT AAT GAT GTA AAA CAA TTA
MXHIV00327 --A -- --G -- -- -- --G -- -- -- --A -- -- -- --A -- -- -- --A -- -- -- --C -- -- --
MXHIV00395 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00401 --A -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00422 -- -- C-- --G -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --G --

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----- Reverse transcriptase (p66, p51) -----
-----Connection subdomain-----
3654                                                                                                     3728
|
HXB2
MXHIV00086 ACA GAG GCA GTG CAA AAA ATA ACC ACA GAA AGC ATA GTA ATA TGG GGA AAG ACT CCT AAA TTT AAA CTG CCC ATA
MXHIV00327 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00395 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00401 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00422 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --G --

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----- Reverse transcriptase (p66, p51) -----
-----Connection subdomain-----
3729                                                                                                     3803
|
HXB2
MXHIV00086 CAA AAG GAA ACA TGG GAA ACA TGG TGG ACA GAG TAT TGG CAA GCC ACC TGG ATT CCT GAG TGG GAG TTT GTT AAT
MXHIV00327 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00395 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00401 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00422 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --C --

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----- Reverse transcriptase (p66, p51) -----
-----Connection subdomain----->-----p51 domain end----->|<--RNase H (p15)
3804                                                                                                     3869 | 3870
|
HXB2
MXHIV00086 ACC CCT CCC TTA GTG AAA TTA TGG TAC CAG TTA GAG AAA GAA CCC ATA GTA GGA GCA GAA ACC TTC TAT GTA GAT
MXHIV00327 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00395 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00401 --T -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00422 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --T --

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----- Reverse transcriptase (p66, p51) -----
-----RNase H (p15)-----
3879                                                                                                     3953
|
HXB2
MXHIV00086 GGG GCA GCT AAC AGG GAG ACT AAA TTA GGA AAA GCA GGA TAT GTT ACT AAT AGA GGA AGA CAA AAA GTT GTC ACC
MXHIV00327 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00395 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00401 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00422 --A -- -- -- --T -- --C -- --T -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --A --T--

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----- Reverse transcriptase (p66, p51) -----
-----RNase H (p15)-----
3954                                                                                                     4028
|
HXB2
MXHIV00086 CTA ACT GAC ACA ACA AAT CAG AAG ACT GAG TTA CAA GCA ATT TAT CTA GCT TTG CAG GAT TCG GGA TTA GAA GTA
MXHIV00327 --G -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00395 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00401 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00422 --G -- -- -- -- --G -- -- -- -- --G -- -- -- --A -- -- -- --A --G --CC--

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----- Reverse transcriptase (p66, p51) -----
-----RNase H (p15)-----
4029                                                                                                     4103
|
HXB2
MXHIV00086 AAC ATA GTA ACA GAC TCA CAA TAT GCA TTA GGA ATC ATT CAA GCA CAA CCA GAT CAA AGT GAA TCA GAG TTA GTC
MXHIV00327 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00395 --T -- --G -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00401 -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
MXHIV00422 --T -- -- -- -- --C -- -- -- -- --T -- -- -- --G -- -- -- --A --G -- -- -- --A -- --G --

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----- Reverse transcriptase (p66, p51) -----
-----RNase H (p15)-----
4104                                                                                               4178
HXB2
MXHIV00086 AAT CAA ATA ATA GAG CAG TTA ATA AAA AAG GAA AAG GTC TAT CTG GCA TGG GTA CCA GCA CAC AAA GGA ATT GGA
MXHIV00327 -----C-----A-- --C-----
MXHIV00395 -G----- --A-- --C-- --A----- --T-----
MXHIV00401 -G----- --A----- --C-----
MXHIV00422 -G----- --A-- --A----- --A-- --C-- A-----

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----- Reverse transcriptase (p66, p51) -----> <----- Integrase (p31) -----
-----RNase (p15)-----p66 domain end-----> <-----N terminal domain-----
4179                                                                                               4229 | 4230 | 4253
HXB2
MXHIV00086 GGA AAT GAA CAA GTA GAT AAA TTA GTC AGT GCT GGA ATC AGG AAA GTA CTA TTT TTA GAT GGA ATA GAT AAG GCC
MXHIV00327 -----A-- --G-- --G-----
MXHIV00395 -----T-C----- --T-----
MXHIV00401 --T----- --G----- --C----- AAW -----Y--A-----R-----
MXHIV00422 -----AG----- --G----- --A-----

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----- Integrase (p31) -----
-----N terminal domain-----
4254                                                                                               4328
HXB2
MXHIV00086 CAA GAT GAA CAT GAG AAA TAT CAC AGT AAT TGG AGA GCA ATG GCT AGT GAT TTT AAC CTG CCA CCT GTA GTA GCA
MXHIV00327 -----A-- --C----- --A-- --G----- --G----- --A----- A-A-----
MXHIV00395 -----A-- --C----- --A----- --G----- --C-----
MXHIV00401 -----A-- --C----- --A----- --C----- --G----- --A-----
MXHIV00422 -----A----- --G----- --C----- --G----- --A-----

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----- Integrase (p31) -----
-----N terminal domain-----> <-----Catalytic core domain-----
4329                                                                                               4403
HXB2
MXHIV00086 AAA GAA ATA GTA GCC AGC TGT GAT AAA TGT CAG CTA AAA GGA GAA GCC ATG CAT GGA CAA GTA GAC TGT AGT CCA
MXHIV00327 -----G----- --T----- --A----- --G----- --A-----
MXHIV00395 -----A----- T----- --A----- --G----- --A-----
MXHIV00401 -----A----- --G----- --A-----
MXHIV00422 -----A----- --G----- T----- --C-----

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----- Integrase (p31) -----
-----Catalytic core domain-----
4404                                                                                               4478
HXB2
MXHIV00086 GGA ATA TGG CAA CTA GAT TGT ACA CAT TTA GAA GGA AAA GTT ATC CTG GTA GCA GTT CAT GTA GCC AGT GGA TAT
MXHIV00327 -----G----- --G----- --C----- --T-- --A----- --C----- --T-----
MXHIV00395 -----G----- --C----- --A----- --G----- --A----- --C----- --T-----
MXHIV00401 -----A----- --A----- --T----- --A-----
MXHIV00422 -----G----- --C----- --A----- --T-----

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----- Integrase (p31) -----
-----Catalytic core domain-----
4479                                                                                               4553
HXB2
MXHIV00086 ATA GAA GCA GAA GTT ATT CCA GCA GAA ACA GGG CAG GAA ACA GCA TAT TTT CTT TTA AAA TTA GCA GGA AGA TGG
MXHIV00327 -----G----- --G----- --CA----- --C-- --C-- --C-----
MXHIV00395 -----G----- --A-- --A----- --C-- --C-- A-C-- --G-- C-----
MXHIV00401 -----C----- --G----- --A----- --C-- --C-- --C-----
MXHIV00422 -----G----- --G----- --A----- --A----- --C-- --A-- --C----- C-- --C-- --G-----

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----- Integrase (p31) -----
-----Catalytic core domain-----
4554                                                                                               4628
HXB2
MXHIV00086 CCA GTA AAA ACA ATA CAT ACT GAC AAT GGC AGC AAT TTC ACC GGT GCT ACG GTT AGG GCC GCC TGT TGG TGG GCG
MXHIV00327 -----A----- --T-- G----- --T-- A-- AA- G-A----- --A----- --A-----
MXHIV00327 -----C----- --A----- --CC----- --A----- AA- --T----- --A----- --T----- --A-----
MXHIV00395 -----A----- --A----- --A----- --A----- G-A----- --A-----
MXHIV00401 -----TG----- --A----- --CC----- --T-- A-- AA- G----- --A-----
MXHIV00422 -----A----- --A----- --T----- A-- A-- --A----- --A-----

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----- Integrase (p31) -----
-----Catalitic core domain-----
4629                                                    4703
|
HXB2  GGA ATC AAG CAG GAA TTT GGA ATT CCC TAC AAT CCC CAA AGT CAA GGA GTA GTA GAA TCT ATG AAT AAA GAA TTA
MXHIV00086  --G --- --- --- --- --C --- --- --- --- --- --- --- --- --- --G --- --- --A --- --- --- ---
MXHIV00327  --G --- C-- --- --- --C --C --- --- --- --- --- --- --- --- --- T-A --- --- --- ---
MXHIV00395  --G --- --- --- --- --C --- --- --- --- --- --- --- --- --- --G --G --C --- --- --- ---
MXHIV00401  --G --- --- --- --- --C --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00422  --G --- --A --- --- --T --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

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----- Integrase (p31) -----
-----Catalitic core domain-----
4704                                                    4778
|
HXB2  AAG AAA ATT ATA GGA CAG GTA AGA GAT CAG GCT GAA CAT CTT AAG ACA GCA GTA CAA ATG GCA GTA TTC ATC CAC
MXHIV00086  --- --- --- --- --A --- --A --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00327  --- --- --- --- --A --- --- --- --- --- --- --- --- --- --G --- --- --- --- --- ---
MXHIV00395  --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00401  --- --- --- --- --- --- --- --- --A --- --- --- --- --- --- --- --G --- --- --- --- ---
MXHIV00422  --- --- --A --- --A --- --- --- --- --- --- --- --- --- --- --- --- --- --- --T ---

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----- Integrase (p31) -----
-----Catalitic core domain-----
4779                                                    4853
|
HXB2  AAT TTT AAA AGA AAA GGG GGG ATT GGG GGG TAC AGT GCA GGG GAA AGA ATA GTA GAC ATA ATA GCA ACA GAC ATA
MXHIV00086  --- --- --- --- --- GGG GGG --- GGG GGG --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00327  --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00395  --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00401  --- --- --- --- --- --- --- --- --- --- --A --- --- --- --- --- --- --- A-- --- --- --- ---
MXHIV00422  --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

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----- Integrase (p31) -----
-----N terminal domain-----
4854                                                    4928
|
HXB2  CAA ACT AAA GAA TTA CAA AAA CAA ATT ACA AAA ATT CAA AAT TTT CGG GTT TAT TAC AGG GAC AGC AGA AAT CCA
MXHIV00086  --- --- --- --- --- --C --- --- --- --- --- TC- --A --- --- --- --- --- --- --- --- --- ---
MXHIV00327  --- --- --G- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00395  --- --- --- --- --C- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00401  --- --- --G- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00422  --- --- --- --- C- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

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----- Integrase (p31) -----
-----N terminal domain-----
4929                                                    5003
|
HXB2  CTT TGG AAA GGA CCA GCA AAG CTC CTC TGG AAA GGT GAA GGG GCA GTA GTA ATA CAA GAT AAT AGT GAC ATA AAA
MXHIV00086  --- --- --- --- --- --C --- --A --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00327  --- --- --- --- --G --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00395  --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00401  --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00422  --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

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----- Integrase (p31) -----
-----N terminal domain-----
5004                                                    5078
|
HXB2  GTA GTG CCA AGA AGA AAA GCA AAG ATC ATT AGG GAT TAT GGA AAA CAG ATG GCA GGT GAT GAT TGT GTG GCA AGT
MXHIV00086  --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00327  --- --- --- --- --- --G --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00395  --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00401  --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
MXHIV00422  --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

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-- Integrase (p31) -->
----->
5079                                                    5096                5114
|
HXB2  AGA CAG GAT GAG GAT TAG *** **
MXHIV00086  --- --- --- --- --- *** **
MXHIV00327  --- --- --- --- --- AAC ATG GAA CAG CCT AG*
MXHIV00395  --- --- --- --- --- AAC ATG GA* **
MXHIV00401  --- --- --- --- --- AAC ATG G** **
MXHIV00422  --- --- --- --- --- GAC ATG *** **

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Alignments produced from partial overlapping clones of viral RNA sequences obtained from human blood samples. Clones, contigs, alignments, annotations and maps produced by Pedro Gerardo Hernández Sánchez, Viral & Human Genomics Laboratory UASLP, México. Unanimity reformating script written by James Robinson, Anthony Nolan Research Institute, London.

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