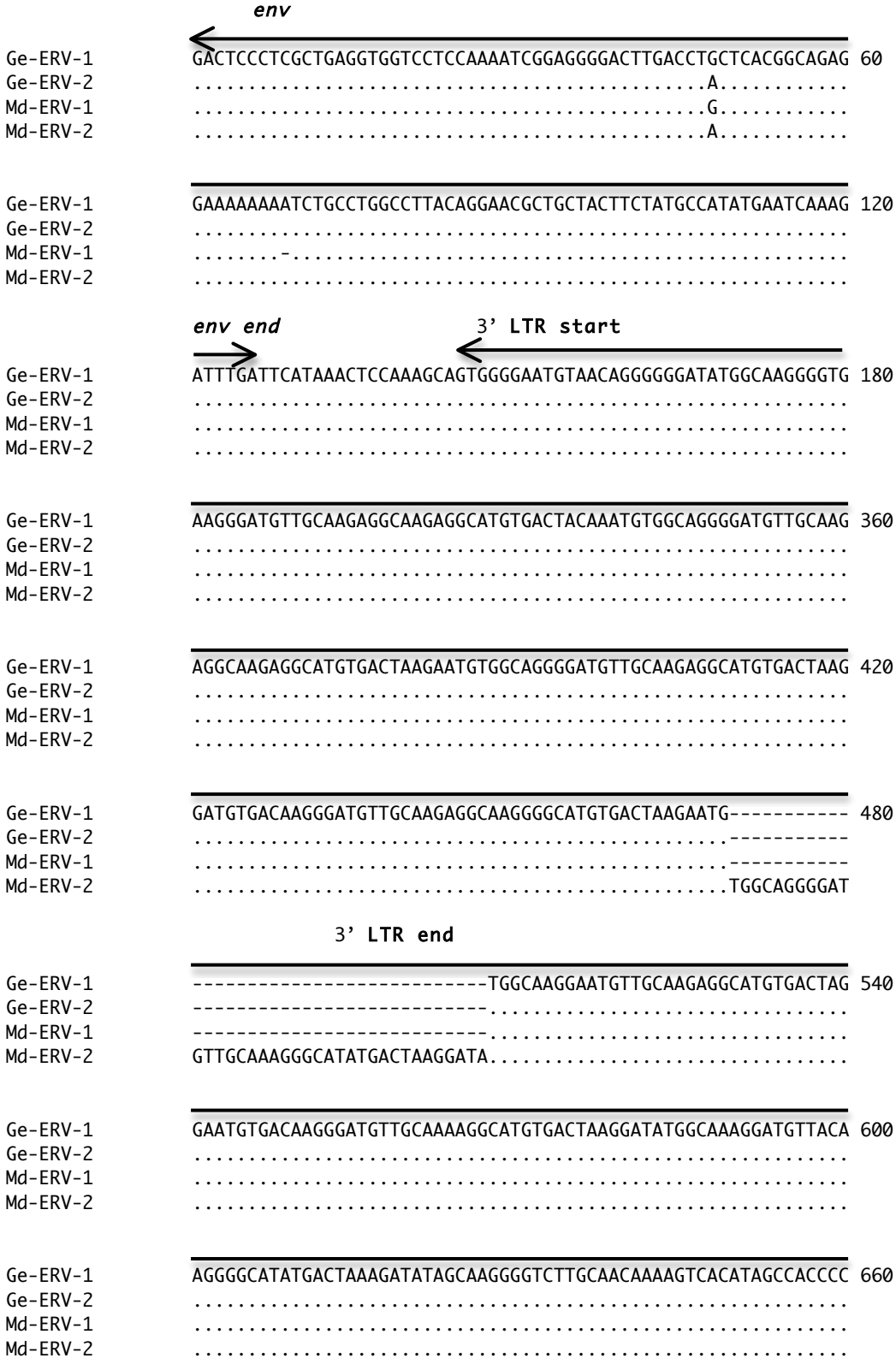


**Fig. S1**



Ge-ERV-1 TTAGAAGAGAATAAAAAGAGGAGGATGGAGAAGGCTAAGTGCTGCTCATACCTGCTACCCG 720  
 Ge-ERV-2 .....  
 Md-ERV-1 .....  
 Md-ERV-2 .....

Ge-ERV-1 CTTTTGCTTAGCAGGGCGTCAGCCCAGATTGGAATCTGTAATAAATTAATAAAAAATCCCA 780  
 Ge-ERV-2 .....  
 Md-ERV-1 .....  
 Md-ERV-2 .....

insertion site

Ge-ERV-1 AATGCTCTGGGGTCGTCTGCTCCTTGCAGGGTCTTCACTTCATTACAGTATTGTTATTGG 840  
 Ge-ERV-2 .....  
 Md-ERV-1 .....  
 Md-ERV-2 .....  
 Cat .....  
 Dog .....  
 Panda .....G.....  
 Ferret .....G.....

Ge-ERV-1 GCACITTTAAAAGTTTTAAAAAACATATTTTCTCC-----TTAGTTACACAA 900  
 Ge-ERV-2 .....  
 Md-ERV-1 .....  
 Md-ERV-2 .....  
 Cat .....GAAAGT.....GGG.GTG.GTTTTCTCCTGAATTTTCTCC.AG...GA.G..  
 Dog .....GAAAG-.....GGG.G.A.GTTTTCTC----TTTTCTCA.AG.....G..  
 Panda .....GAAAG-.....GGG.G.A.GTTTTCTC----TTTTCTCA.AG.....G..  
 Ferret .....G.....GCG.G.....----TTTTGTCA.AG..CTC...

Ge-ERV-1 TTGTTGCCTATGTTTCTATAATTCTGATCAACTTCTTAAAAGCCTTCTGTGCTTCAGAG 960  
 Ge-ERV-2 .....  
 Md-ERV-1 .....  
 Md-ERV-2 .....  
 Cat .....AG..GCA.....GG..T.....T.....TA.....TG..T  
 Dog .....A..GCA.....G..T.....T.....A.....TG..T  
 Panda .....A..GCA.....G..T.....T.....A.....TG..T  
 Ferret .....T..A..GC..-...GG..T.....T....-...A.....TG..T

Ge-ERV-1 TTATATAAAGAAGATAC----ATTACAATATTATGCACACTGACTACAAGCTAGTTAG 1020  
 Ge-ERV-2 .....  
 Md-ERV-1 .....  
 Md-ERV-2 .....  
 Cat ..G.G.G...G..G.G.----GA.TT..GC...G.T..TG.....G.T...G..  
 Dog ..GG.G.G...G.TG..TGATCGA...T.GC.G.C.T.GTC...G.....T  
 Panda ..CG.G.G...G.TG.GT----GA...GGC...G.T..TG...G.....C...T  
 Ferret CCG.G.G...G.TG.GT----GA...GGC...G.T..TG...G...T...G...T

→  
 Ge-ERV-1 CAC 1024  
 Ge-ERV-2 CAC  
 Md-ERV-1 CAC  
 Md-ERV-2 CAC  
 Cat CTT  
 Dog CTT  
 Panda CTT  
 Ferret TTT