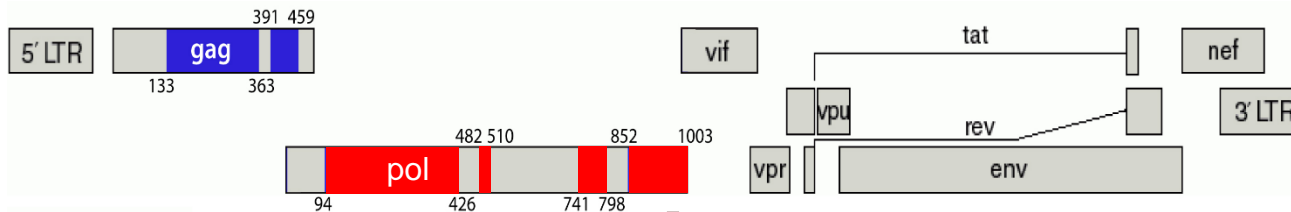
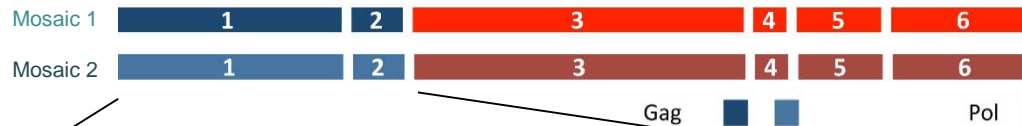


# 6 highly functionally conserved regions



Computed into bi-valent mosaic (always used together)



Differ in 10% aa

Gag 1  
(Mosaic 1)

PIVQNLQGQMVHQAI SPRTLNAWVKVIEEKAFSPEVIPMFTALSEGA **TL9** TPQDLN**TM**LN**TV**VGGHQAA**M**QMLKDTINEEAAEW  
 DRVHPVHAGPIAPGQMREPRGSDIAGTTSNLQEQIGWMTSNPPIPVGDYIYKRWIILGLNKIVRMYSFVSILDIRQGPKEP  
 FRDYVDRFFKTLRAEQATQEVKNWMTDTLLVQANANPDCKTILRALGPGATLEEMMTACQGVGGPGHKARVL

Gag 1  
(Mosaic 2)

PIVQNAQGQMVHQALSPRTLNAWVKVVEEKAFSPEVIPMFSALSEGATPQDLN**M**MLN**IV**VGGHQAA**M**QML**KETI**NEEAAEW  
 DRLHPVHAGPIPPGQMREPRGSDIAGTTSTLQEQIGWMTNNPPIPVGEIYKRWIIMGLNKIV**RMYSPTS**ILDIRQGPKEP

Gag 2  
(Mosaic 1)

FRDYVDRFYKTLRAEQASQEVKN**WV8** **WTETLLVQ**AN**NPDCKTILKALGPA** **AA9** **ATLEEMMTACQGVGGP**SHKARVL

Gag 2  
(Mosaic 2)

KCFNCGKEG**HR10** **HIAKNCRAPR**KRGCWKCGRREGHQMKDCNERQANFLGKIWPSHKGRPGN**FLQSRPEPTAPP**  
 KCFNCGKEGHLARNCRAPRKKGCWKCGRKEGHQMKDC**TL8** **TERQANFLGKIWPSNKGRPGNFPQSRPEPSAPP**