a

```
ViBArCP
RP                -40       -30       -20       -10        +1       +11       +21       +31       +41
AP        1         11        21        31        41   *    51        61        71        81
WT        LEIAAQHSKLTGLSLRTMQHDVAAALNLSVDEVDVQENLLFLGLDSIRAIQLLEKWKAQGADISFAQLMEHVTLQQWWQTIQANLHQPCSA
1st round LEIAAQHSKLTGLSLRTMQHDVAAALNLSVDEVDVQENLLFLGLDSVRAIQLLGKWKAQGADISFAQLMKHVTLQQWWQTIQANLHQPCSA
2nd round LEIAAQHSKLTGLSLRTMQHDVAAALNLSVDEVDVQEHLLFLGLDSVRAIQLLGKWKAQGADISFAQLMKHVTLQQWWQTIQANLHQPRSA
3rd round LEIAAQHSKLTGLSLRTMQHDVAAALNLSVDEVDVQEHLLLLGLDSVRAIQLLGKWKAQGADISFAQLMKHVTLQQWWQTIQANLHQPRSA
RP                                                  -8  -5    *+1       +8                  +24                 +43
                                                    Loop II             Helix II            Helix III

HMWP2ArCP
RP                                  -10       +1        +11       +21       +31       +41
AP        1         11        21        31*       41        51        61        71
WT        DYQQLRERLIQELNLTPQQLHEESNLIQAGLDSIRLMRWLHWFRKNGYRLTLRELYAAPTLAAWNQLMLSRSPENA
1st round DYQQLRERLMQELNLTPQQLHEESDLIQAGLDSIRLMRWLHWFRKNGYRLTLRELYAAPTLAAWNQLMLSRSPEDA
2nd round DYQQLRERLMQELNLTPQQLHEESDLIQAGLDSVRLMGWLHWFRKNGYRLTLRELCAAPTLAAWNQLMLSRSPEDA
3rd round DYQQLRERLMQELNLTPQQLHEESDLIQAGLDSVRLMGWLHWFRKNGYRLTLRELCAAPTLAAWNQLMLSRSPEDA
RP                -23                 -8       *+1                 +23                 +42
                                      Loop II   Helix II            Helix III
```

b

```
RP                -40       -30       -20       -10        *+1       +11       +21       +31       +41
EntBArCP                  ASKAELREVILPLLDESDEPFDDDNLIDYGLDSVRMMALAARWRKVHGDIDFVMLAKNPTIDAWWKLLSREVK
VibB2ArCP         LEIAAQHSKLTGLSLRTMQHDVAAALNLSVDEVDVQENLLFLGLDSIRAIQLLEKWKAQGADISFAQLMEHVTLQQWWQTIQANLHQPCSA
HMWP2ArCP                 DYQQLRERLIQELNLTPQQLHEESNLIQAGLDSIRLMRWLHWFRKNGYRLTLRELYAAPTLAAWNQLMLSRSPENA
RP                                          -8        *+1                 +23                 +42
```