A

```
                                                                                *********
PduK57   MKYFVVALISAVFFIGVCQAATPSKKCRDDYKARTLSESCILHCEYKAYGFANDKYDIKRKQIDQFVNVLVNGNAVTSDK
PduM58   MKYFVVALISAVFFIGVCQAATPSKKCRDDYKARTLSESCILHCEYKAYGFANDKYDIKRKQIDQFVNVLVNGNSVTSDK

                                         *********
PduK57   RKKLENLLRGCANTARDKNPKLGCQTTVDYYRCIVADKNLINYSKFVAAIIAHDKTININ
PduM58   RKKLENLLRGCANTARDKNPKLGCRTTVDYYRCIVADKNLINYSKFVAAIIAHDKTININ
```

B

```
PduM12   MKYLVVALICAVLFTGISLAATPSLKCREQSKALKLKESCTLHCQYKVYGFVNDKYEIKQKHMDKLAKFLIKENVVDSTN
PduK109  MKYFVVALISAVVFIGICHATNPSLKCREESRAKGLKESCTLHCQYKAYGFVNDKFEIKKKHRNKLAEFLINGNVVDSNK

                                         *********  **********
PduM12   KRKLNSLLKKCVNETKEKNED--PSCYRTFDYFICINKDHELIDHNKFILAIAALDKTFDI
PduK109  RKKLDNLLQKCLTETKEKHEDEDPSCYITFDYYICINKDHDLIDHRNFILAITALDKTIHI
```

C

```
PduM31   MKYLVVSLFLAVCFIGLCQAGIPSKKCREDHLAGKLKEECILYCEYEAYRFTNLKYDIKPKHINNFLTVLTTGKVVNSTN
PduK56   MKYLVVSLFLAVCFIGLCQAGIPSKKCREDHLAGKLKEECILYCEYEAYRFTNLKYDIKPKHINNFLTVLTTGKVVNSTN

                                    **********
PduM31   RKEFEKMFNDCAKKAKAKHTTPNCERINYYYTCIIYETKDDLIISGKFQDAIDAYDKTVNI
PduK56   RKEFEKMFNDCAKKAKAKHTTPNCERINYYYTCIIYETKDDLIISGKFQDAIDAYDKTVNI
```

D

```
                                                                        *********
PduM49   MKYLVVSLISAVFLIGICQAAIPSRKCRELYRAGKITEECILQCEYEAYGFINSKFEIEQQHIIKYMAVLMKGKVLNERN
PduK41   MKYLVVSLISAVFLIGICQAAIPSRKCRELYRAGKITEECILQCEYEAYGFINSKFEIEQQHIIKYMAVLMKGKVLNDRN

PduM49   KKKFQDVFTKCKKRAYHKFPKGGCGRTNDYYECIVYYSDDDMVIDGKFADALIAYDQSLNI
PduK41   KKQFQDVFTKCKKRAYHKFPKGGCGRTNNYYECIVYYSDGDMVIDGKFADALIAYDQSLNI
```

E

```
                                                                    ********
PduM234  MKYLVVSLISAVFLIGTCQADIPSRKCRELYKTRKIDEECILHCEYVAYGFTNMNFDIEKEHIIKFMAVLMKAKVLNDSN
PduK42   MKYLVLCLISAVFLIGICQADIPSRKCRELYKTKQIDEECILHCEYVAYGFTNMKFDIENEHIYKYMAVLMKAKILNDSN

PduM234  KKEFEKTFKKCKCRAMAKYPKRNCKTITDYYECIVYYTDDDLVIDGKFADAIIAYDKTVKV
PduK42   RKKFETMFKNCKKRAFAKYSKRSCKTITDYYECIVYYTDDDLIIDGKFANAIIAFDKTVKV
```

F

```
PduM07   MKYFVVSLIS-TVLFIGICQAANPSKKCRDDYRASTLSESCILHCEYKAYGFANDNYDMKKKHIDNFVNALIDGNAVTND
PduK40   MEILCWFLLFLQVLFIGICQAANPSKKCRDDYRASTLSESCILHCEYKAYGFANDNYDMKKKHIDNFVNALIDGNAVTND

                                         *************
PduM07   KRQKLENLLRKCANEARKENPNFGCQTTIDYYRCIVRDQKLINYSKFATAIILHDRKINMN
PduK40   KRQKLENLLRKCANEARKENPNFGCQTTIDYYRCIVRDQKLINYSKFATAIILHDRKINMN
```