```
S1   ...MEPVNILWFRNGLRLHDNISLHHAVKDTTAKFLPLFIFDGETPVTKKCQYNKMQFLLECLEDLDEQLREQGS
S2   MEGKEAVNILWFRNGLRLHDNESLHIAASDEKVKVLPLFIWDGETPVTRMSAFNKVEFLVECLQDLDDQLQKVGS


S1   KLYCIKGSPAEVFRKLSKKLKIEKVCFDQDCEPIWLERDNSVKNFCGSHRIEVIESIGGTLWDPLEIIEANGGTP
S2   NLYCVRGQPVAVFEKLHKAFKVKKLCFDQDCEPIWLERDNAVKNFCVKKKIKVCESIGATLWNPLKIIEANDGIP


S1   PLTYAQFCHVSSGLGSPRRPVDDIDFKTVRFADVSENLMAELGFYTTVPEAHTLGFIKESHHQKVYKGGERRALK
S2   PLTYSIFTHVIEAVGPPRRPQPNLDLSKVNFAKLEDNLQVKLNCFNKVPQPEDLGFTKTT.EKKVYKGGETRALK


S1   YFRRRIVAESDAFVDGSFLPNRRDPDILCNPKSLSPDLKFGCLSIKTFYWAIQDAFDGVYQGSPPAKTNFCIVSQ
S2   FFNRRIQNEKEAFLDGSFLPNIRDPDILNPPKSLSPDLKFGCLSVKTFYWAIMDAFKEVHEGNPPPS..HVIVSQ


S1   LIWREFFYAMSTNNPFYGEIKRNPICIRVPWYKDDQALAIFLAGKTGFPFIDAGIRQLKNEGWIHHTVRNALSMF
S2   LIWREFFYTMSANNPFYAEIFRNPICIDVPWGKDEELLNKYKKGETGYPFIDAGLRQLMQEGWTHHVVRNALSMF


S1   LTRGDLWLSWEHGLDLFLDYLIDADWAVSAGNWMWVSSSAFEKALNSTFDLDPRIYGRRVDAHGEYIKRYIPELK
S2   LTRGDLWLSWEPGFQLFMEKQIDADWAVCAGNWMWVSSSAFEQALNVSFSLDPRYYGRRFDPHGKYIKKWLPELK


S1   NYPCEYLYDPSSAPLEVQQKAGCIIGQDYPAAMVDHDKVSIQNRKNMQDLRDELMRKFNEQ.PPHIKPSDENEVK
S2   NFPEEYIYTPWTASLEVQEEAGCIIGKDYPFTIVNHDETVVYNTKMMNKLQQLLMKKYNQQEPEHIKPSGDAEVK


S1   NFFRLEINGEDP
S2   NFFRIE......
```

X	non-conserved
X	similar
X	≥ 50% conserved
X	≥ 70% conserved

Figure 1: Centropages hamatus CRY1
S1 - TRINITY DN5759 c0 g1 i12.p1 ORFtype complete len 533
S2 - TRINITY DN11471 c0 g1 i15.p1 ORFtype complete len 528