```
S1   ..........................................................................
S2   MEWMVMNMDRFFAPATQLGNYTKDKYVVPPNCLAKIRKIIHRLNQDKARWHFRRSLFMNKIISTNLLPLLVHVKE
S3   MEWMVMNMDHFFAPSIQLGTYMKDKYVVPPNCQAKIKKIIHRLNQDKARWHFRRSLFMNKIISTNLLPLLVHVKE


S1   ..........................................................................
S2   DKGLMEATIKVLQELMTPVECLMPTETMSQNHEGRRIIYELESAIVNTKKLFLDTQVTKAIVDLMSSILQDSKIL
S3   EKELMESTVKVLQELMTPVECLMPTETMSQNHEGKRIIYELESAIVNAKKLFLDTQVTKAIVDLMSSVLQDNKIL


S1   ..........................................................................
S2   SLPECELINQCLLLIRNLLHVSSIPTPPHHHA...........................................
S3   SLPECELINQCLLLVRNLLHVSSIQLPQQQTPNYSGTPSTSNSSAASASNMTMSTSQQGGANTSVLTEDQIMWNL


S1   ..........................................................................
S2   ..........................................................................
S3   FAQRFDNILIQLLTCNQQHLWNITMVQLVSLMYRDQQQGTIRKLINEWLESSLPESSEDDENNPMSSSSSDAIST


S1   ..........................................................................
S2   ..........................................................................
S3   SDPVSDSSERLSPVDSMTKKNKKIHKMSSFQEDSDFASGNKNSHNLDSCQDSGFCRTGSNIDSSFDESVSDNSYR


S1   ..........................................................................
S2   ..........................................................................
S3   MLGLEKQEKEGSGGGTITAWYPGEAPPSMAKTNKVIEKAPTEEKKVSDGKTCGECEENESDQGGNEGGSEASSPV


S1   ..........................................................................
S2   ..........................................................................
S3   PSEEQQSPVTLDTNKPGDPHLMEFLPGKEQAEAERKNTILISKQEEQSFPVRETHSPMDEEVRQSVGQHVKWPPN


S1   ..........................................................................
S2   ..........................................................................
S3   VEESGFSGDSSEKKPPPQLPKLHKNKPLVGQKRSRHTMSQKLLSDTQENNESSNSTGSECDEGPHAKRPHHQKPH


S1   ..........................................................................
S2   ..........................................................................
S3   KMLSKPRPAKMLQKALQERNIKRTKLMKRKESNSIKAKALLHHHPTPEDISNLLKEFTVDFMINGYSNLLQGLRL


S1   ..........................................................................
S2   ..........................................................................
S3   QVMMPYQIDLDKSHLLWLITYFLRFAVELDLELSQICPVLCVDVVCYLVYEGVVMQEELEQAVRAGESNLLPHVR


S1   ..........................................................................
S2   ..........................................................................
S3   RLHLVVTALREFFVAFEICLKKEQSLTDANHLLHIREELGTLVEIRQLFILLIRMYRPGVLNLNYLQDLITTNHR


S1   ..........................................................................
S2   ..........................................................................
S3   YLITQETSVPCLSPHYSFNLFNHIKQFATMDIMRQYSRLLENFNMNDEMVNDCIFTMMHHIAGDLRNVNVLLQPS


S1   ..........................................................................
S2   ..........................................................................
S3   ILKVFMRIWKEGFELCGDWADLIEYVLRKCTRIRIQHPDKEKRNHPNKPMVEAPSIDLSNEDFDQLYNLYLATTS


S1   ..........................................................................
S2   ..........................................................................
S3   EQDLMDKIKEICCDDSIEEPIKKEVIQKLLAGGFITNSECSKLCAEIPIASHTHTNSQPIIRRHSPVEPLVANKS
```

```
S1  .................................MTTQEVTEKLDGMGSLKLASPPHPHRFRPKKMEEKPIE.I
S2  ......................................................................
S3  EGDLSLECDVMQVSSDSEDSSDVPSNLPLTSQITKMSTEEVTEKLDGMVSLKLASPPHALSFKS.KLEEKPIELI


S1  QAPLSEKGSVEGNFTYNEDSTEWDDNNAAVMFLIDKLREEGHGSQVQWLQKQLLEACYAKIKFVGNDIPRPEAVA
S2  ......................................................................
S3  QGPLSEK.SVDVSFLFNEDSYDWDDNT.SVAFHIDKLREEGYGSQVVWLQKQILEACYAKIRFLGTNLPTPEPIA


S1  FHFTLSNQSIPLIPWTSEQEEAFSSPTFSHLLRELGLHLPSETGKLYPRIPNSWCPEVLFMVAKRLGHLNDSVLR
S2  ......................................................................
S3  FHFTLSNQSIPLIPWTSEQEEAFSSPSFRQLLAELGFHLPSDTGKLYPRIPHFWCPEVLYMVAKRLGDITDSVLR


S1  VSLEQTQILLELVRQMAITGAMRLEEIQFEESFLREGTFSVDYNDDSEELSDCSMENNRSSNSSPVPSLEEKLLL
S2  ......................................................................
S3  VPLEQMQSLMQHVRQMALAGAMRVDGISMVEPFANIRANSIDY.DSSEELSDCSMENNRSGNSSPVSSIEEKLMP


S1  IPEGDTPRSTSLT
S2  .............
S3  MPEGEMGWSNGLT
```

Legend:

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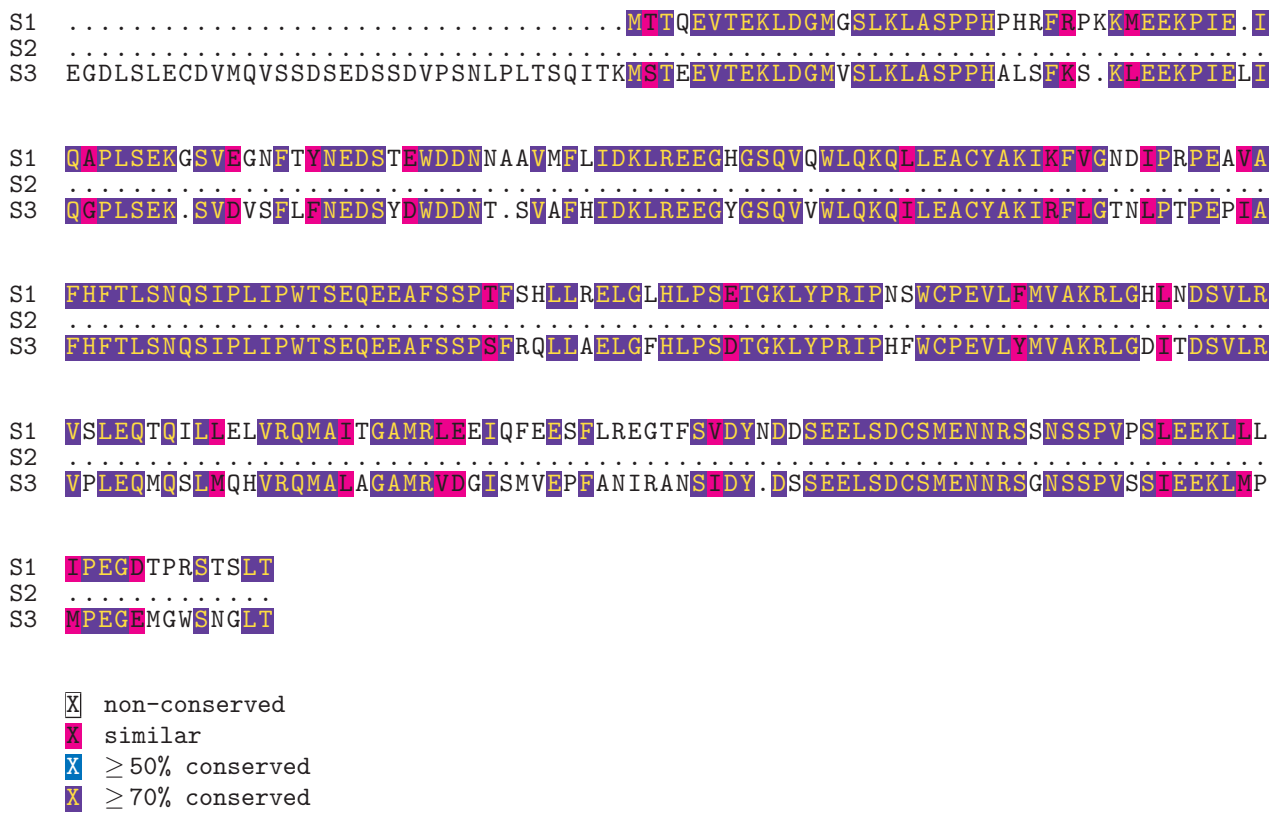- X similar
- X ≥ 50% conserved
- X ≥ 70% conserved

Figure 1: Corystes sp TIM
S1 - TRINITY DN12064 c1 g3 i1.p1 ORFtype complete len 277
S2 - TRINITY DN51931 c0 g1 i1.p1 ORFtype 3prime partial len 182
S3 - TRINITY DN1692 c0 g1 i15.p1 ORFtype complete len 1359