(A)

```
thrombospondin_          MQLTLFIVIVTFTHLSCEVQSDSNPLISGKMEKLPQDCKDTLIQQMRNKCGESPFQTQLV
ISL929_cluster233_       MQLALFMIMVTFTLLSCEEQSEASPDIFGVMKYLPEDCKVNIKKQIEDKCSGNPYQPQLL
ISL1373_cluster33_       MQLALFLVVATFIYVSCGEKSESGLVIYKEFESLQEGCKQKLRDEMEQRCSEHPFQPELV
IP_clu364_               MQLTQFMIIMGFTHLSCGVQLESSSDSDRNMMCLASHFRTTLRQQMEGKCSEMPQLGRTP
IPM-P3-F10_              MQLALFMVMVTFTHLSCEEQSQASPNIFGEMNYLPKDCFDRLKAQIEDGCEGHKFQPELG
                         ***: *:::  *  :**  : ::.      :  * .  : .: .::. :*.      .
thrombospondin_          E-VKDCSFACGEWHNNGQTMGTSRQTTNLKDGTSCGYRKICVGGHCVQQCLVDFA-------
ISL929_cluster233_       E-VKDCTIICGDWHDNGVTKAITRHIINLKDGTPCGHSRVCIKGKCFDTCQMTFV-------
ISL1373_cluster33_       E-VLQCKFKCGNEHSNGKTLLISGQYINLNDGTPCGPNKICIDGQCVPRCSMPFVKGLKGRI
IP_clu364_               QNVERCQFTCEKEDTSSGHSVVSKQLFRLKDGTPCGYDMVCRGGACIDILDMNFV-------
IPM-P3-F10_              W-VTECKFKCGYENNDGYIKTTTGQTYNLKDGTPCGHSRVCINGDCVDTCSMRFV
                         : *  * : * . . ..     : :  .*:***.**   :*  * *.    : *.
```

(B)

```
                                 577
ADAMST4_Cys_Rich_domain   ----GSALTFREEQCAAYNHRTDLFKSFPGPMDWVPRYTGVAPQ--DQCKLTCQAR--AL
Ix_short_coding_Cys_Rich  VQLESSSDSDRNMMCLASHFRTTLRQQMEGKCSEMPQL-GRTPQNVERCQFTCEKEDTSS
                          19  .*: : *:  * * :.** * :.: *  . :*:  * :**  ::*::**: .  :
                                                                                     687
ADAMST4_Cys_Rich_domain   GYYYVLEP--RVVDGTPCSPDSSSVCVQGRCIHAGCDRIIGSKKKFDKCMVCGGDGSGC
Ix_short_coding_Cys_Rich  GHSVVSKQLFRLKDGTPCGYD--MVCRGGACI----D-ILD--MNFV-----------
                          *:  * :   *: *****. *   **  * **    * *:.   :*115
```

(C)

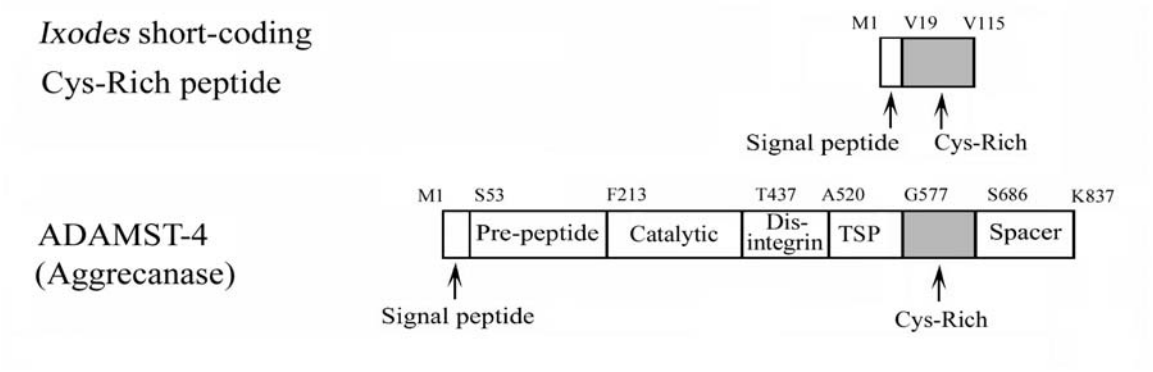

Figure 8