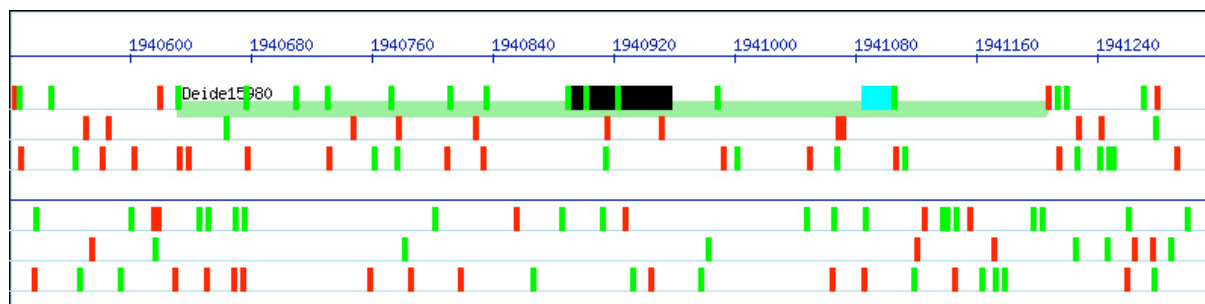


Figure S1

A



B

```
Deide_15980      MSVKDNFTADEWFKIMTGPRAGAAVVAASPSGLTGLLAEAQAIAASVREHVSRAGRTP 60
revDR_0869      MSVKDNFTADEWFKVMTGPRAGAAVVAASPSGLTGLLAEAQAIAASVRESVSGTPRTP 60
revDgeo_0511    MSVKDNFTAEEWFTVMNGPGRAGAAVVAASPSGLTGLVAEAQAIAQAVREQVSAQGRTP 60
                *****:***:*.*****:*****:*** **   ***

Deide_15980      MEAIAADLMGSPADPQSLPQQEKARNMEEAVAQSIIEGVRQAIWLVSSTQEDAAAYQQM 120
revDR_0869      MEAMAAELLGTPDPKDLPPQ-NTRDMEEVKAQSIIEGVRQAAWLVSSTKASPEDAAAYRQM 119
revDgeo_0511    LEAMAADLLGTPDPKMLAGQERPRNLEEARAQSLIEGVRQAVWLVDKASPEDAAAYRRL 120
                :*:*:*:*:*:*:*: * . * ..*:*:*. ***:***** ***:**:* *****:::

Deide_15980      LIEVERTAQAAKEGGFLGIGGEQVNDKERQVIEELRRVIGGASVQGDSTVTPTQETLP 180
revDR_0869      LLKVVENTANAAKEGGFLGIGGEQVNDKERAVMDELQVIGGD---QTNQPTVVQETLP 175
revDgeo_0511    LWTVAERTAGAAKEGGFLGLGGEQVSEKERAVLDELRGVGLGLEG-----GTAVLTHETPP 175
                * *.**.* *****:*****:*** *:*** *:*. . . :** *

Deide_15980      ST-----PSPDGSNSN 192
revDR_0869      ESTGTTMPAPDGSNSN 192
revDgeo_0511    AG-----PGDSENGG 185
                *..* ..
```

C

```
revDeide_15980  -----CATDHPP 7
DR_0869         MAQRWRSKRQSGPLAPCLLSLPSVAVAAAVGRWHRSPGGLRQGFLLHGRVLRLVAANHLT 60
Dgeo_0511       -----MRE-----DRCSPLOTKHAA 15
                :.* .

revDeide_15980  QFLDDLALLIIDLLAAYAQEAPFLRCLRCTFHNLDQHLLVCGGVFLAGFTADQPDCLTHS 67
DR_0869         QFVHHGAFLLVVDLFAADAQEAAFLRGVRGVFHHLEQHLAVSGGVFGARLAHQPRGLPHA 120
Dgeo_0511       QFIQHGTFLLTHLLAAKAQKATLLGGPGSALGHGPKQAAVGGGILWAGLAVHQPDGLPHA 75
                **:.. :*: .*:** *:*:.. .: : : * **: * :*:..* *:*:

revDeide_15980  LNALGHGFFHIAGLFLLWQRLRICRRAHQVSCDSFHQGGACPADVLTHAGGNSLRFSQQ 127
DR_0869         LNALRFDLHFHAG-VLLGQVLGVGRGAEQFGGHRHLHQRARRAADTFAHGSGNRLRFGEQ 179
Dgeo_0511       LQALRAGFFQVAGPFLPCQHLGVGRRTQQIGGHRLLQRRSTLSAHLLANRLRDGLRLRHQ 135
                *:*** .*:*:*. * * * : * :*. . :*: : .*. :*: : **:.*

revDeide_15980  AGQAAGAGCHDGGSRPARTGHDFEPLVCREVVFYAHKASLVT----- 169
DR_0869         PGQSAGAGGDHSGPRAAPGHDLPLVCREVVFYAHAAASFNG----- 221
Dgeo_0511       ASQATGAGRHHRRACPAQTVHHRPRLRRKIVLDAHAITLNGRENPGLVGAFTGSESTSS 195
                ..*:*** .. . * . *. ***:***: ** ::

revDeide_15980  ----GWPYAYWAFIYP---- 181
DR_0869         ----SCSFRRL----- 228
Dgeo_0511       SISLSLPFPPLSRLTSTLRA 215
                . .:
```