rsmH_ECOLI

```
                                             1        10                 20
rsmH_ECOLI         ..........................MGSSHHHHHSSGENL.........YFEGSHMA
METTL15_FRUITFLY   ..........................MK...RLLNPTRLRLDWL...........
METTL15_ZEBRAFISH  .....MPQYYSCFMAAPC........RQTLGVWKHVATLRNPRMFRRCWRKSWHPGRLYT
METTL15_CHICKEN    MINSKMLSQCLC.QVNKCLLHNLKLNPIKLAALSRRIHSSVKQLS..EYE..LTEQTTQK
METTL15_MOUSE      MLRY....PYFYRTYNRLFSHFVDSGASNLDVCPHTIHTAVALHT..ESK..AVEGTALC
METTL15_HUMAN      MLRY....PYFCRMYKECLSCWLESGIPNLGVWPNRIHTTAEKYR..EYE..AREQTDQT
```

rsmH_ECOLI

```
                                           α1              β1            α2
                                        oooooooo      TT  ────▶      ooooooo       T
                          30        40          50        60          70      ★  80
rsmH_ECOLI         S...MTGGQQMGRMMENYKHTTVLLDEAVNGLNIRPDGIYIDGTFGRGGHSRLILSQLGE
METTL15_FRUITFLY   ........RRSSIDVTTAPHVPVLCDTAIEYLQPVPGGTYFDMTFGAGGHTRRLLEKCP.
METTL15_ZEBRAFISH  GSVPSSPDCEMPVQEEKPFHTPVMVKEVLQFLNIKPGQIVLDLTFGAGGHSKAILQSVP.
METTL15_CHICKEN    SETKK.LPDSTENKNFGRLHVPVMMEEVVSCLSPQSGQCFLDMTFGAGGHSTALLEKAS.
METTL15_MOUSE      GPQKVYSSEEKELEAMAKLHIPVMVDQVVHCLAPQKGQVFLDMTFGSGGHTRAILQKEP.
METTL15_HUMAN      QAQELHRSQDRDFETMAKLHIPVMVDEVVHCLSPQKGQIFLDMTFGSGGHTKAILQKES.
```

rsmH_ECOLI

```
                   T   ────▶β2       ooooo α3          T.....T  ────▶β3  oooo η1 α4         ────▶β4
                           90        100            110      120            130
rsmH_ECOLI         EGRLLAIDRDPQAIAVAKTIDDP.....RFSIIHGPFSALGEYVAERD.LIGKIDGILLD
METTL15_FRUITFLY   EAKVYALDRDPLAHQLARDMSESEEFKGRLIPLLGKFSDLPKLFKEHGLAKNSVDGMLFD
METTL15_ZEBRAFISH  GVTVVAADRDPTAFRMAQQLA..EEYQGKVKPVLGRFSELNNLLPALGLGPGTVDAALLD
METTL15_CHICKEN    NITIYALDRDPTAYKIAQQLS..ESYPKQIQALLGQFSQSEALLISSGVEPGTLDGVLLD
METTL15_MOUSE      DVMVYALDRDPVAYAIAEQLS..RLYPTQIQALLGQFSQAEALLMKAGVQPGTIDGILMD
METTL15_HUMAN      DIVLYALDRDPTAYALAEHLS..ELYPKQIRAMLGQFSQAEALLMKAGVQPGTFDGVLMD
```

rsmH_ECOLI

```
                               ooooo α5  ooo η2              TT        ooooo α6    ooooooooo α7
                            140        150        160        170       180       190
rsmH_ECOLI         LGVSSPQLDDAERGFSFMRDGPLDMRMDPTRGQ...SAAEWLQTAEEADIAWVLKTYGEE
METTL15_FRUITFLY   FGCSSMQFDEAVRGFSISRDGPLDMRMDGGHSGG.VTAADVLANVEEGDLVKILRMYGEE
METTL15_ZEBRAFISH  AGCSSMQMDSAERGFSLSKDGPLDMRMDGDRYPDMPCAADVVNALDQQALASVLAAYGEE
METTL15_CHICKEN    AGCSSMQFDTPERGFSLQKDGPLDMRMDSDRYPDMPTAADVVNALDQQALASILRTYGEE
METTL15_MOUSE      LGCSSMQLDAPERGFSLRKDGPLDMRMDGDRYPDTPTASDVVNALDQQALASILRAYGEE
METTL15_HUMAN      LGCSSMQLDTPERGFSLRKDGPLDMRMDGGRYPDMPTAADVVNALDQQALASILRTYGEE
```

rsmH_ECOLI

```
                   oooooooooooooo..o α8      ooooooooooo α9                          ooooooo α10
                             200        210        220        230          240
rsmH_ECOLI         RFAKRIARAIVERNR.EQPMTRTKELAEVVAAATPVKD........KFKHPATRTFQAV
METTL15_FRUITFLY   KAAKKIARGLVDARNALFKIETTKQLADIIENIMDG...GTRKDKLRRPAHSATKTFQAI
METTL15_ZEBRAFISH  RHTRKIAAAIAQARS.VYPIGRTLQLASIVAGAFPASALYARRDRLQRPSHVATKTFQAL
METTL15_CHICKEN    KHAKKIASAIVQARS.IYPITRTQQLASIVAGAFPASALYARKDLLQRPTHIATKTFQGL
METTL15_MOUSE      KHAKKIASAIIQARS.TYPISRTQQLASIVAGAFPPSAVYARKDLLQRSTHIATKTFQAL
METTL15_HUMAN      KHAKKIASAIVQARS.IYPITRTQQLASIVAGAFPPSAIYTRKDLLQRSTHIATKTFQAL
```

rsmH_ECOLI

```
                        ooooooooooooooo α11   ────▶β5       ooooooooooo α12
                             250     ★  260        270        280        290        300
rsmH_ECOLI         RIWVNSELEEIEQALKSSLNVLAPGGRLSIISFHSLEDRIVKRFMRENSRGPQVPAGLPM
METTL15_FRUITFLY   RIFVNNELNEINYGMVLANEILRVDGRLVTITFHSLEDTIVKRHINGNVLAGAANALPLK
METTL15_ZEBRAFISH  RIFVNDELNELHAGLRVAQTLLRPKGRLCVLTFHSLEDRLTKRFLRGEDLAAPPRRSLRQ
METTL15_CHICKEN    RIFVNDELHELFIGLKTAEKFLKPGGRLVALSFHSLEDRIIKRFLHGIDMTEKYNLGSKQ
METTL15_MOUSE      RIFVNNELNELYAGLRTAEKFLKTGGRLVALSFHSLEDRIVKRFLLGISMTERFNLSIRQ
METTL15_HUMAN      RIFVNNELNELYTGLKTAQKFLRPGGRLVALSFHSLEDRIVKRFLLGISMTERFNLSVRQ
```

rsmH_ECOLI

```
                                           ────▶β6         ooooooo α13  ooo η3     ────▶β7
                             310                320        330          340     ★
rsmH_ECOLI         TEEQLKKL.............GG.....RQLRALGKLMPGEEEVAENPRARSSVLRIAERT
METTL15_FRUITFLY   .......YSSHYAIDEPDILESLTKKSWKQLHRHVIVPDADEVARNTRSRSAKLRAAVKT
METTL15_ZEBRAFISH  HARARPAGQEEEFEEEEGDEGGNSVHWVS.LKKVIKPSEEEVQENPRARSAKLRTAVRQ
METTL15_CHICKEN    KIRQALKNCS.KEEDTHEFPHGKSNSKWTFIQKKVLTPQAKDILTNPRARSAKLRAAVKL
METTL15_MOUSE      KVKQTSQLDS.DQETEER.HSVRAPLKWELIHKKVLTPEDQDVQDNPRGRSAKLRAAIKL
METTL15_HUMAN      QVMKTSQLGS.DHENTEEVSMRRAPLMWELIHKKVLTPQDQDVQDNPRGRSAKLRAAIKL
```

rsmH_ECOLI

```
rsmH_ECOLI         NA
METTL15_FRUITFLY   N..
METTL15_ZEBRAFISH  ..
METTL15_CHICKEN    ..
METTL15_MOUSE      ..
METTL15_HUMAN      ..
```