

[illegible]

[illegible]

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(CIOIN)RTN      -----K  TQ-
(HUMAN)RTN1     -----H  AE-
(MACMU)RTN1w    -----  ----
(BOVIN)RTN1w    -----H  .E-
(MOUSE)RTN1     -----H  AE-
(RAT)RTN1       -----H  AE-
(CANFA)RTN1     -----H  AE-
(CHICK)RTN1     -----  AE-
(XENLA)RTN1.1   -----  -E-
(XENLA)RTN1.2   -----  -E-
(DANRE)RTN1     -----  AE-
(FUGRU)RTN1     -----  EE-
(ICTPU)RTN1     -----  AE-
(CYPCA)RTN1     -----  AE-
(GASAC)RTN1w    -----  EE-
(ONCMY)RTN1     -----  EE-
(ORYLA)RTN1     -----  EE-
(DANRE)RTN5     -----  -E-
(CYPCA)RTN5w    -----  -E-
(ICTPU)RTN5w    -----  ---X

(HUMAN)RTN2     ----GSKA. AE-
(MOUSE)RTN2     ----GSKA. AE-
(RAT)RTN2       ----GSKA. AE-
(BOVIN)RTN2     ----GPKA. AE-
(PIG)RTN2       ----GSKA. AE-
(XENLA)RTN2     -----  QK-
(XENTR)RTN2     -----  QK-
(FUGRU)RTN2     ----GGAKP. N.-
(ICTPU)RTN2w    -----  ---X
(FUGRU)RTN8     AAPSLRQKA. AK-
(DANRE)RTN2     ----GGAKP. AH-
(DANRE)RTN8     ---LKHKQ. .K-
(ONCMY)RTN8w    -----  ---X
(ONCMY)RTN2     ----GGAKP. ..-
(ORYLA)RTN2     ----GGAKP. L.-

(HUMAN)RTN3     -----  AE-
(MOUSE)RTN3     -----  AE-
(RAT)RTN3       -----  AE-
(CANFA)RTN3w    -----  AE-
(SHEEP)RTN3w    -----  ----
(BOVIN)RTN3     -----  AE-
(PIG)RTN3       -----  AE-
(PANTR)RTN3     -----  AE-
(CHICK)RTN3w    -----  ----
(XENLA)RTN3.1   -----  SE-
(XENLA)RTN3.2   -----  SE-
(XENTR)RTN3     -----  SE-
(PAROL)RTN3     -----  .E-
(DANRE)RTN3     -----  AE-
(CARAU)RTN3w    -----  ----
(CYPCA)RTN3w    -----  AE-
(FUGRU)RTN3     -----  .E-
(GASAC)RTN3     -----  .E-
(SALSA)RTN3w    -----  AE-
(ORYLA)RTN3w    -----  ----
(ONCMY)RTN9     -----  AE-
(ONCMY)RTN3     -----  AE-
(FUGRU)RTN7     -----  AE-
(ONCMY)RTN7     -----  AE-
(ONCMY)RTN11    -----  AE-
(SALSA)RTN7w    -----  AE-

(HUMAN)RTN4     -----  AE-
(MACFA)RTN4     -----  AE-
(MACMU)RTN4w    -----  ---X
(MOUSE)RTN4     -----  AE-
(RAT)RTN4       -----  AD-
(BOVIN)RTN4     -----  AE-
(SHEEP)RTN4     -----  AE-
(PIG)RTN4       -----  .E-
(CANFA)RTN4w    -----  ----
(PANTR)RTN4     -----  AE-
(CHICK)RTN4     -----  .E-
(XENLA)RTN4.1   -----  AE-
(XENLA)RTN4.2   -----  SE-
(XENTR)RTN4     -----  AE-
(CARAU)RTN4     -----  .E-
(DANRE)RTN4     -----  .E-
(FUGRU)RTN4     -----  .E-
(ONCMY)RTN4     -----  AE-
(ONCMY)RTN10    -----  AD-
(SALSA)RTN4     -----  AE-
(SALSA)RTN10w   -----  AD-
(ORYLA)RTN4w    -----  AE-
(CYPCA)RTN4     -----  .D-
(CYPCA)RTN6     -----  NPK
(DANRE)RTN6     -----  SD-

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Supplementary Figure 1: Diagnostic residues for vertebrate RTN subfamilies.