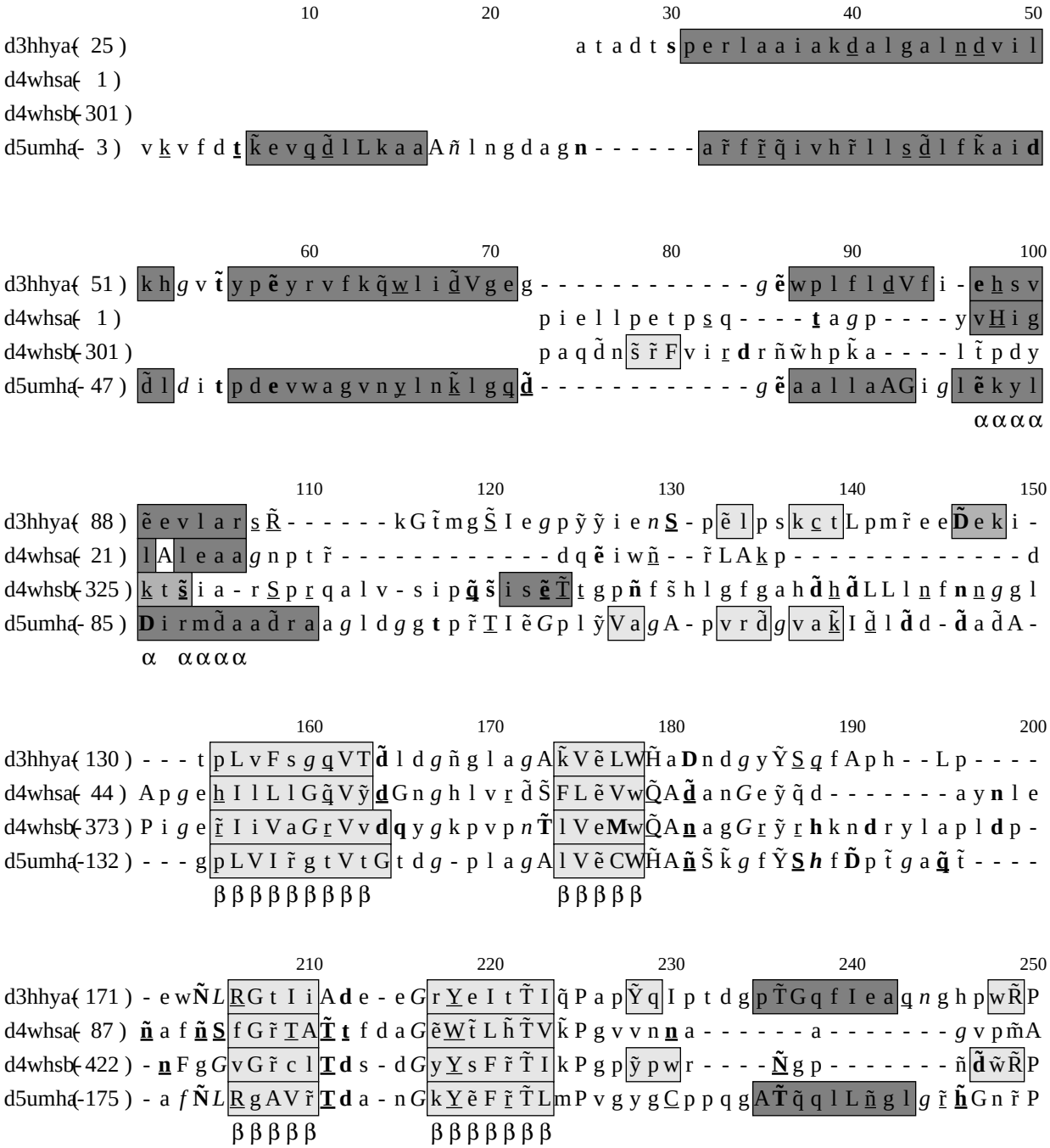
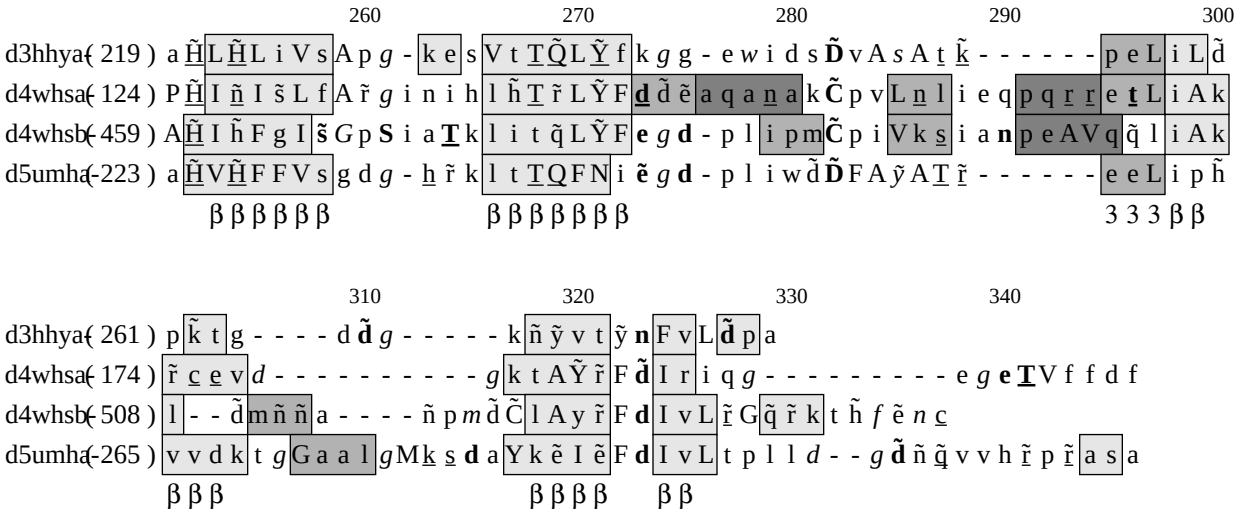

10 20 30 40 50
d3hhya(25) atadtsperlaaiakdalgalndvil
d4whsa(1)
d4whsb(301)
d5umha(3) vkvfdtkevqdllkaaAnlngdagn------arfrqivhrllsdlfkaid
60 70 80 90 100
d3hhya(51) khgvtypeyrvfkqwlidVgeg----------gewplfldVfi-ehsv
d4whsa(1) pielipetpsq----tagp----yvHig
d4whsb(301) paqdnsrFvirdrnwhpka----ltpdy
d5umha(47) dldit pdevwagvnylnklgqd----------gealaaAGiglekyl
αααα
110 120 130 140 150
d3hhya(88) eevlarsR------kGtmgSIegpyyieneS-pelpskctLpmreeDekei-
d4whsa(21) lAleaagnptr----------dqeiwn--rLAkp----------d
d4whsb(325) ktsiar-Sprqalv-sipqsisetgpnfshlgfgahdhdLLlnfnngggl
d5umha(85) Dirmdaadraaglddggtpr TIeGplyVagA-pvrdgvakIdldd-dadA-
α ααααα
160 170 180 190 200
d3hhya(130) ---tpLvFsgqVTdldgngl agAkVelWHaDndgyYSqfAph--Lp----
d4whsa(44) Apgehl l l l GqVydGngh l v r dSFLeVwQAdanGeyqd-------ayn l e
d4whsb(373) Pigerl i Va G r Vvdqygkpvpn T l VeMwQAnagGryrhknd r y l apl dp-
d5umha(132) ---gpLVIrgtVtGtdg-plagAlVeCWHAnSkgfYSh fDptgaqt----
ββββββββ ββββ
210 220 230 240 250
d3hhya(171) -ewNLRGtIiAde-eGrYeItTIqPapYqIptdgpTGqfIeaqngh pwRP
d4whsa(87) naf nSfGrTATtfdaGeWthLhTVkPgvvnna-------a--------gvpmA
d4whsb(422) -nFgGvGrclTds-dGyYsFrTIkPgpypwr----Ngp--------ndwRP
d5umha(175) -afNLRgAVrTdan GkYeFrTLmPvgygCppqgAThqqlLngl g rhGnrP
ββββ ββββββ


260 270 280 290 300
d3hhya_ (219) a H L H L i V s A p g - k e s V t T Q L Y f k g g - e w i d s D v A s A t k - - - - - - p e L i L d
d4whsa_ (124) P H I n I s L f A r g i n i h l h T r L Y F d d e a q a n a k C p v L n l i e q p q r r e t L i A k
d4whsb_ (459) A H I h F g I s G p S i a T k l i t q L Y F e g d - p l i p m C p i V k s i a n p e A V q q l i A k
d5umha_ (223) a H V H F F V s g d g - h r k l t T Q F N i e g d - p l i w d D F A y A T r - - - - - - e e L i p h
β β β β β β β β β β β β β 3 3 3 β β
310 320 330 340
d3hhya_ (261) p k t g - - - - d d g - - - - - k n y v t y n F v L d p a
d4whsa_ (174) r c e v d - - - - - - - - - - g k t A Y r F d I r i q g - - - - - - - - - e g e T V f f d f
d4whsb_ (508) l - - d m n n a - - - - n p m d C l A y r F d I v L r G q r k t h f e n c
d5umha_ (265) v v d k t g G a a l g M k s d a Y k e I e F d I v L t p l l d - - g d n q v v h r p r a s a
β β β β β β β β β