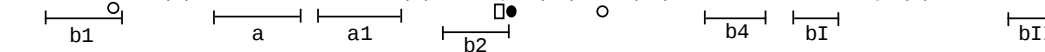


|            |     | * 153                         | 169                    | * | 186           | 189      | 197                         | 211 | 214 | 234 | 254 | 263              | 274 |
|------------|-----|-------------------------------|------------------------|---|---------------|----------|-----------------------------|-----|-----|-----|-----|------------------|-----|
| h.noct     | 143 | IRVMQWNI <sup>LAQ</sup> (15)  | ALKWEERKCLILEEILAY(2)  |   | DILCLQEVD(13) | GYQC(19) | DGCALFFLQNRKFLVNSANIR(8)    |     |     |     |     | NQVAIAQTLECK(5)  |     |
| m.noct     | 141 | IRVMQWNI <sup>LAQ</sup> (15)  | ALKWEERKCLILEEILAY(2)  |   | DILCLQEVD(13) | GYQC(19) | DGCALFFLQNRKFLISSTNIR(8)    |     |     |     |     | NQVAIAQTLECK(5)  |     |
| xe.noct    | 99  | FRVMQWNI <sup>LAQ</sup> (15)  | ALKWEERKYLILEEILMY(2)  |   | DVLCLQEVD(13) | GYQC(19) | DGCALFFLQDRFQVLSAKIR(8)     |     |     |     |     | NQVAIAETLQCC(5)  |     |
| d.noct     | 118 | IRLLQWNI <sup>LSQ</sup> (15)  | ALTWEHRKYLIVQEILQN(2)  |   | DVLCLQEVD(12) | NYAG(19) | DGCAIFYKRDKLQGLQYDTRI(8)    |     |     |     |     | NQVAIAARLRMR(5)  |     |
| ym1118     | 109 | VKMITYNLT <sup>LAQ</sup> (13) | ALKWHKRKSVLHELKKY(2)   |   | DVVSLOQVE(14) | GFDV(9)  | HGLLVAVNNKQFLQDNWMLD(16)    |     |     |     |     | KNIALIISLYFK(9)  |     |
| ymr285     | 112 | FKLMTYNCL <sup>LAQ</sup> (13) | ALKWYRRSKVLLNEFKYY(2)  |   | DVICLQEID(15) | GYDG(9)  | HGVAIMWRRELHFQVDKMLID(15)   |     |     |     |     | NNVGLVLALKFS(16) |     |
| h003635    | 261 | IRTVSYN <sup>ILAD</sup> (19)  | ALELDYRQNLIQKELTGY(2)  |   | DVICLQEVD(15) | GLEG(7)  | EGLATFYRKSKFSLSQSHID(17)    |     |     |     |     | LVLVPSAQEKVL(18) |     |
| d003635    | 276 | IRVVSYN <sup>LAD</sup> (19)   | YLQIDYRKPLFINEIIGY(2)  |   | DILCLQEVD(17) | NYHG(9)  | EGVAIFFRNSRFDLLSDQILH(17)   |     |     |     |     | IKVNAQLAERIC(19) |     |
| ce003635   | 307 | IRIMSYN <sup>ILAD</sup> (20)  | SQRIIYRTPIFLKQLHDF(6)  |   | SLIFLQEVD(15) | SYSS(10) | EGVAIIFDSQRQFVISSCKYG(26)   |     |     |     |     | PTVLQIVVLKDS(5)  |     |
| ara1g02270 | 72  | ISCTFNI <sup>ILAP</sup> (17)  | RTLWLARNQRLLDLLLHQ(2)  |   | SVICLQEVW(17) | GYTI(10) | DGLLTATYKDKHFKVNVNIRELL(5)  |     |     |     |     | DRVAQ--LLHVK(16) |     |
| yo104      | 27  | FTLLTYN <sup>LSP</sup> (14)   | YKNWSYHRRLLEKLELQ(3)   |   | DVCLQEMT(16)  | NYGS(18) | DGVSIIFYNLAKDFDIFSSSGIY(24) |     |     |     |     | DGASNVIGEDSL(24) |     |
| h.angel    | 145 | FSVMSYN <sup>ILSQ</sup> (16)  | VLHWSFRFPNILKEIKHF(2)  |   | DVLCLQEVQ(15) | GYHC(10) | DGCAICFKHSKFSLLSVNPVE(11)   |     |     |     |     | DNVGLVLLQPK(8)   |     |
| m.angel    | 167 | FSVMSYN <sup>ILSQ</sup> (16)  | VLHWSFRFPNILKEIKHF(2)  |   | DVLCLQEVQ(15) | GYHC(10) | DGCAICFKHSRFSLLSVNPVE(11)   |     |     |     |     | DNIGLVLLQPK(8)   |     |
| ce.angel   | 72  | FTICSYN <sup>VLCD</sup> (18)  | FLDWHRWRGLQVELPTF(2)   |   | DILGLQEVE(15) | GYES(12) | DGCAIFYHAPKVELVANQEVN(11)   |     |     |     |     | ENIAQIIVALRC(5)  |     |
| d.angel    | 68  | FKVVSYN <sup>ILAQ</sup> (16)  | FLSWORRQQLNRELLKL(2)   |   | DILCLQEMQ(15) | GKKL(12) | DGCAIVYDSSKFELLDHQAVE(11)   |     |     |     |     | DNVALFARFRFK(8)  |     |
| ara3g18500 | 109 | FTVVSYN <sup>ILGD</sup> (16)  | YLKWGYRKRRLICEELIRL(2) |   | DIISMQEVD(12) | GYAG(12) | DGCAMFWKADRFGLVERENIE(7)    |     |     |     |     | DNVAQLAVLELR(7)  |     |
| ara3g58580 | 251 | FTVVSYN <sup>ILSD</sup> (14)  | ALAWTYRRQNLREIVKY(2)   |   | DIVCLQEVE(15) | GYES(17) | DGCATFFRRDRFSHVEFNKA(22)    |     |     |     |     | DNVALIVLEAK(14)  |     |
| ara3g58560 | 251 | FTVVSYN <sup>ILSD</sup> (14)  | ALSWPYRRQNLREIVGY(2)   |   | DVCLQEVQ(15)  | GYQA(17) | DGCATFFRRDRFSHVKKYDVE(27)   |     |     |     |     | DNIALIVVLEAK(16) |     |
| hCCR4      | 189 | FSVMCYN <sup>VLCD</sup> (14)  | ALNWDYRKKAIIQEILSC(2)  |   | DIVSLQEVE(14) | GYNG(19) | DGCAIFFKTEKFTLVQKHTVE(22)   |     |     |     |     | DNIGVAVLLELR(19) |     |
| mCCR4      | 189 | FSVMCYN <sup>VLCD</sup> (14)  | ALNWDYRKKAIIQEILSC(2)  |   | DIISLQEVE(14) | GYNG(19) | DGCAIFFKTEKFTLVQKHTVE(22)   |     |     |     |     | DNIGVAVLLELR(19) |     |
| dCCR4      | 206 | FTVMCYN <sup>VLCD</sup> (14)  | ALCWYRKKSIIIDEIRHY(2)  |   | DIISLQIEI(14) | GYEG(19) | DGCAIFFRASKFTLTKESLIE(22)   |     |     |     |     | DNIGLAALLKVK(16) |     |
| ceCCR4     | 220 | FTVLCYN <sup>VLCD</sup> (14)  | ALNWEYRKGLIIEKIRTY(2)  |   | DVITLQEVE(14) | GYAG(19) | DGCAIFWKVDKFDMDKQYLFE(22)   |     |     |     |     | DNIGLCAVLKIK(24) |     |
| yCCR4      | 505 | FTVLYN <sup>LTLCQ</sup> (14)  | ALSWDYRRNKLEQLLSY(2)   |   | DLLCLQEVE(14) | GYTG(19) | DGCCIFFKRDQFKLITKDAMD(24)   |     |     |     |     | DNVALFLKLQHI(5)  |     |
| HAP1       | 62  | LKICSWN <sup>VDG</sup> (-0)   | LRAWIKKGK-LDWKKEA(1)   |   | DILCLQETK(28) | GY--(0)  | SGVGLLSRQCPKLKVSYGIGDE(2)   |     |     |     |     | DQEGRVIAE--(3)   |     |
| exoIII     | 1   | MKFVSNI <sup>NG</sup> (-0)    | LRA-RPHQLEIAIVEKHQY(1) |   | DVIGLQETK(18) | FYHG(4)  | YGVALLTKETPIAVRRGFGPD(2)    |     |     |     |     | EQQRRIIAEIP(5)   |     |
| DNaseI     | 1   | LKIAAFNI <sup>RITF</sup> (3)  | KMSNATLASIYIVRIVRRY(0) |   | DIVLIQEV(20)  | TYHY(12) | ERYLFLFRPNKVSVDLTYQYD(9)    |     |     |     |     | SFSREPAVVKFS(8)  |     |



|            |                              | 280                                  | 291 | 295 | * | 312                                                      | 317 | 342       | 360                           | 364 | 376                             | 386 | 411 | 424 |
|------------|------------------------------|--------------------------------------|-----|-----|---|----------------------------------------------------------|-----|-----------|-------------------------------|-----|---------------------------------|-----|-----|-----|
| h.noct     | FCIAVTHL <sup>KART</sup> (3) | RFRSAQGC <sup>DLLQNLQ</sup> IT(4)    |     |     |   | IPLIVCGDFNAE <sup>PTTEEVYKHF</sup> ASSNL(18)             |     | PYTTW(11) | LDYIWYSK <sup>HAL</sup> (24)  |     | PSDHL <sup>SLVCD</sup> FSFT(8)  |     |     |     |
| m.noct     | FCIAVTHL <sup>KART</sup> (3) | RFRSAQGC <sup>DLLQNLQ</sup> IT(4)    |     |     |   | IPLIVCGDFNAE <sup>PTTEEVYKHF</sup> ASSSL(18)             |     | PYTTW(11) | LDYIWYSR <sup>HAL</sup> (24)  |     | PSDHL <sup>SLVCD</sup> FSFN(8)  |     |     |     |
| xe.noct    | LCFAVTHL <sup>KART</sup> (3) | RFRLAQGS <sup>DLLDNLES</sup> IT(4)   |     |     |   | VPLIICGDFNAD <sup>PTTEEVYKRF</sup> ASSSL(18)             |     | PYTTW(11) | LDYIWYSQ <sup>HAL</sup> (24)  |     | PSDHL <sup>SLVCD</sup> FSFN(8)  |     |     |     |
| d.noct     | FCVATTHL <sup>KARH</sup> (5) | KLRNEQGR <sup>DLIRFVKQ</sup> FA(2)   |     |     |   | TPLLLCGDFNAE <sup>PVEPIYATIL</sup> GDGL(36)              |     | PYTTW(11) | IDYVFTY <sup>TPRL</sup> (24)  |     | PSDHS <sup>LVCD</sup> FELL(33)  |     |     |     |
| ym1118     | IIVANTHL <sup>FWHP</sup> (3) | FERLRQSY <sup>LVLOKQIQE</sup> IK(7)  |     |     |   | WHSLLMGDFN <sup>TEPEEPPYLAIT</sup> KRPL(46)              |     | PQNP(63)  | LDYIFYE <sup>G</sup> (24)     |     | ASDHS <sup>LMCQ</sup> IRLF(11)  |     |     |     |
| ymr285     | LIGTTHL <sup>FWHP</sup> (3)  | YERTRQCY <sup>IVLKKMK</sup> EFM(16)  |     |     |   | WPFPCGDFN <sup>SPQFDPYLSMT</sup> SKPV(43)                |     | PESPV(65) | LDYIFYK <sup>WKD</sup> (45)   |     | ASDHS <sup>LMVCD</sup> LELQ(2)  |     |     |     |
| h003635    | ICVANTHL <sup>YHP</sup> (3)  | YIRLIQMA <sup>VALAIRHVS</sup> (6)    |     |     |   | IPVIFCGDFN <sup>STPGMYHF</sup> VINGSI(33)                |     | AYTNY(7)  | LDYIFD <sup>LNAL</sup> (25)   |     | PSDHL <sup>AVCD</sup> LKWK(1)   |     |     |     |
| d003635    | VLVANTHL <sup>YFP</sup> (3)  | HIRLLQMG <sup>SFMSLFVEQ</sup> SI(14) |     |     |   | IGLIFCGDFN <sup>SVPECGIYKLM</sup> TEQLA(33)              |     | EYTHY(7)  | LDYVYQ <sup>NDRF</sup> (25)   |     | PSDH <sup>VALVAD</sup> LKFK(4)  |     |     |     |
| ce003635   | LVCNTHL <sup>HHP</sup> (5)   | KVKVLQAL <sup>TCTRKLL</sup> EIY(11)  |     |     |   | VLVLFGGDFN <sup>STPNGAVFNLMS</sup> MGNL(31)              |     | EYTN(12)  | LDYIWG <sup>VGA</sup> --(25)  |     | PSDHL <sup>PIICDI</sup> KI--(0) |     |     |     |
| ara1g02270 | VIIINTHL <sup>LFPH</sup> (5) | IVRLHQVY <sup>KILEYLEA</sup> Q(7)    |     |     |   | MPILICGDFN <sup>SGKRHGVYKFL</sup> RSQIV(38)              |     | SDSRK(81) | FDYEEKL <sup>KIWN</sup> (51)  |     | ISDH <sup>ACLTVQ</sup> FSVP(5)  |     |     |     |
| yo104      | FVNVNTHL <sup>YWKY</sup> (3) | DKVLAQ <sup>LAILFASIH</sup> KMR(7)   |     |     |   | VKILFTGDLN <sup>SRDLSGVN</sup> FLQGQIV(29)               |     | VHTCY(7)  | FDYVYH <sup>DS</sup> --(30)   |     | PSDHL <sup>PLTE</sup> FIL(1)    |     |     |     |
| h.angel    | ICVANTHL <sup>LYNP</sup> (3) | DIKLTQAL <sup>MLAEISS</sup> VA(7)    |     |     |   | CPIVMCGDFN <sup>SVPGSPLYSF</sup> TIKEGKL(38)             |     | VYEAQ(65) | VDYIFYT <sup>AK</sup> --(43)  |     | SSDHL <sup>PLLAK</sup> FRLE(2)  |     |     |     |
| m.angel    | ICIANTHL <sup>LYNP</sup> (3) | DIKLTQAL <sup>MLAEIAN</sup> VT(7)    |     |     |   | CPIVMCGDFN <sup>SVPGSPLYSF</sup> TIKEGKL(38)             |     | VYEVQ(65) | VDYIFYSAE <sup>--</sup> (43)  |     | SSDHL <sup>PLLAK</sup> FRLE(2)  |     |     |     |
| ce.angel   | ILVANTHL <sup>LFNE</sup> (3) | DVKLQAL <sup>LAILFASIH</sup> KMR(7)  |     |     |   | PPVFMGDFN <sup>IEPNKSVDF</sup> VDG--(18)                 |     | WKISG(7)  | ADYIKFN <sup>QIE</sup> (27)   |     | PSDHL <sup>PLILAK</sup> FRLE(2) |     |     |     |
| d.angel    | FVWATTHL <sup>LFNT</sup> (3) | DVRCQAQ <sup>VERILEELQ</sup> SFS(3)  |     |     |   | -PIVLTGDFN <sup>SLPDSSPIEF</sup> LVGKNG(21)              |     | TASTY(6)  | VDYILR <sup>SLGSR</sup> (30)  |     | GSDHYAL <sup>GAVFT</sup> AV(1)  |     |     |     |
| ara3g18500 | ILLGNIH <sup>LVPH</sup> (3)  | DVKLQGV <sup>RSLSCKA</sup> HL(5)     |     |     |   | IPVILCGDFN <sup>STPASPLN</sup> FLASSEL(38)               |     | SSWT(53)  | VDYLYFS <sup>TDGLL</sup> (24) |     | GSDH <sup>ALVSEF</sup> VEF(3)   |     |     |     |
| ara3g58580 | LCVANTHL <sup>VNYP</sup> (3) | DVKLQVHT <sup>LKLGLEK</sup> IA(4)    |     |     |   | IPMLVCGDFN <sup>TPKASPLN</sup> FLAVGKV(57)               |     | LFTNC(7)  | LDYIFYT <sup>ADTL</sup> (25)  |     | SSDH <sup>IALAE</sup> FRM(9)    |     |     |     |
| ara3g58560 | VVLANTH <sup>VNVQ</sup> (3)  | DVKLQVHT <sup>LKLGLEK</sup> IA(4)    |     |     |   | IPMLVCGDFN <sup>TLPGSAPHT</sup> LLVMGKV(58)              |     | LFTNC(7)  | HDYIFYT <sup>ADTL</sup> (25)  |     | SSNH <sup>IALAE</sup> FRCT(6)   |     |     |     |
| hCCR4      | ILVANAHM <sup>HWD</sup> (3)  | DVKLVQTM <sup>MLSEVKN</sup> II(17)   |     |     |   | IPVLV <sup>CADLNSLPD</sup> SGVVEYLS <sup>TGGV</sup> (47) |     | PYNTY(7)  | IDYIFYSK <sup>QPL</sup> (27)  |     | PSDHS <sup>FLAQ</sup> LELL(17)  |     |     |     |
| mCCR4      | ILVANAHM <sup>HWD</sup> (3)  | DVKLVQTM <sup>MLSEVKN</sup> II(17)   |     |     |   | IPVLV <sup>CADLNSLPD</sup> SGVVEYLS <sup>TGGV</sup> (47) |     | PYNTY(7)  | IDYIFYSK <sup>QPL</sup> (27)  |     | PSDHS <sup>FLAQ</sup> LELL(17)  |     |     |     |
| dCCR4      | LLVCTAH <sup>IHWDP</sup> (3) | DVKLIQTM <sup>MLSNELK</sup> TII(17)  |     |     |   | VQLLLCGDFN <sup>SLPD</sup> SGVVEYLS <sup>TGGV</sup> (42) |     | PHTNY(7)  | IDYIFYT <sup>KTGM</sup> (27)  |     | PSDHP <sup>LLVE</sup> LELM(17)  |     |     |     |
| ceCCR4     | LVVATAH <sup>IHWDP</sup> (3) | DVKLVQSM <sup>MLTHEVSR</sup> VL(13)  |     |     |   | VPVLICGDFN <sup>SLPD</sup> SGVVEYLS <sup>TGGV</sup> (43) |     | PFTNY(7)  | IDYIFAT <sup>PQSL</sup> (27)  |     | ASDHP <sup>INAQ</sup> YAI(38)   |     |     |     |
| yCCR4      | IWAVTTH <sup>LHWD</sup> (3)  | DVKTFQV <sup>GLLDHLE</sup> TLL(14)   |     |     |   | FPVLICGDFN <sup>SYINS</sup> AVYELINT <sup>GRV</sup> (35) |     | PFTNF(7)  | IDYIWF <sup>STHAL</sup> (25)  |     | PSDHI <sup>LLARFE</sup> FM(10)  |     |     |     |
| HAP1       | FVLVTAY <sup>VPNAG</sup> (2) | LVRLEYR <sup>QQRWDEA</sup> FRKFL(6)  |     |     |   | KPLVLCGDLN <sup>VAHESIDL</sup> RNPKGNKK(34)              |     | AYTFW(12) | LDYFLL <sup>SHSL</sup> (13)   |     | GSDHC <sup>PITLY</sup> AL--(0)  |     |     |     |
| exoIII     | FVNTYF <sup>VPNAG</sup> (2)  | PIKFPKAQ <sup>YFQNLQ</sup> NYL(7)    |     |     |   | NPLVIMGDMN <sup>ISPTDLN</sup> IGKEENRK(39)               |     | RFSWF(13) | IDLLAS <sup>QPLA</sup> (17)   |     | PSDHP <sup>APWAT</sup> FR--(0)  |     |     |     |
| DNaseI     | FAIVALH <sup>SAPSD</sup> (3) | AINSLYD <sup>VYLDVQ</sup> QKWHL(1)   |     |     |   | -DVMLMGDFN <sup>ADCSYVTSSQ</sup> WSSIRL(13)              |     | ADTTA(6)  | YDRIVV <sup>AGSLL</sup> (27)  |     | ISDH <sup>YPVE</sup> VTLT--(0)  |     |     |     |

