

HIV Molecular Immunology 2003: Maps of T-Helper Epitope Locations Plotted by Protein

Theoretical Biology & Biophysics, Los Alamos National Laboratory

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All HIV T-Helper (Th) epitopes mapped to within a region of 21 amino acids or less are indicated on the HIV protein epitope maps. The location and HLA restriction elements of Th epitopes are indicated on protein sequences of HXB2. These maps are meant to provide the relative location of defined epitopes on a given protein, but the HXB2 sequence may not actually carry the epitope of interest, as it may vary relative to the sequence for which the epitope was defined. Epitopes with identical boundaries and HLA fields are included in the maps only once. If one laboratory determines HLA presenting molecules at the serotype level (example: A2) and another at the genotype level (example: A*0201) both will be included in the map. MHC specificities are indicative of the host species; when no MHC presenting molecule is defined, the host species is noted.

1 p17 T-Helper Epitope Map

Figure 1: p17 T-Helper Map aa 1–50

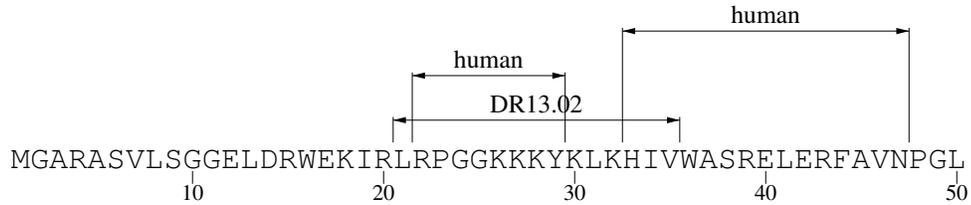
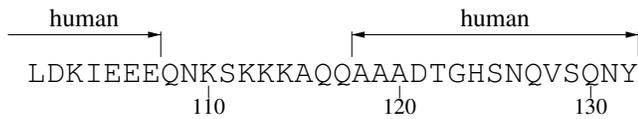


Figure 2: p17 T-Helper Map aa 51–100



Figure 3: p17 T-Helper Map aa 101–132



2 p24 T-Helper Epitope Map

Figure 4: p24 T-Helper Map aa 1–50

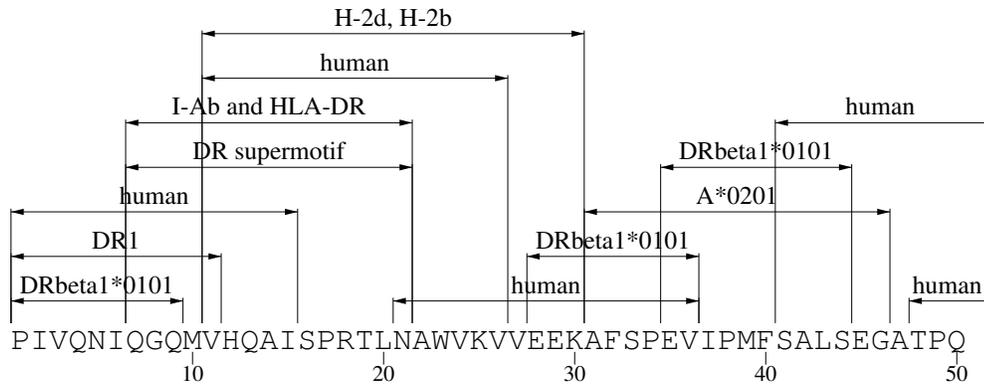


Figure 5: p24 T-Helper Map aa 51–100

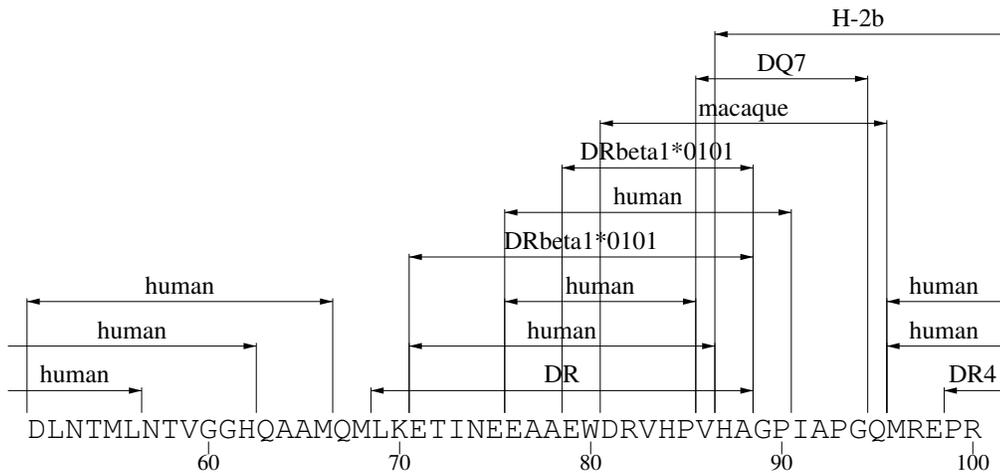


Figure 6: p24 T-Helper Map aa 101–150

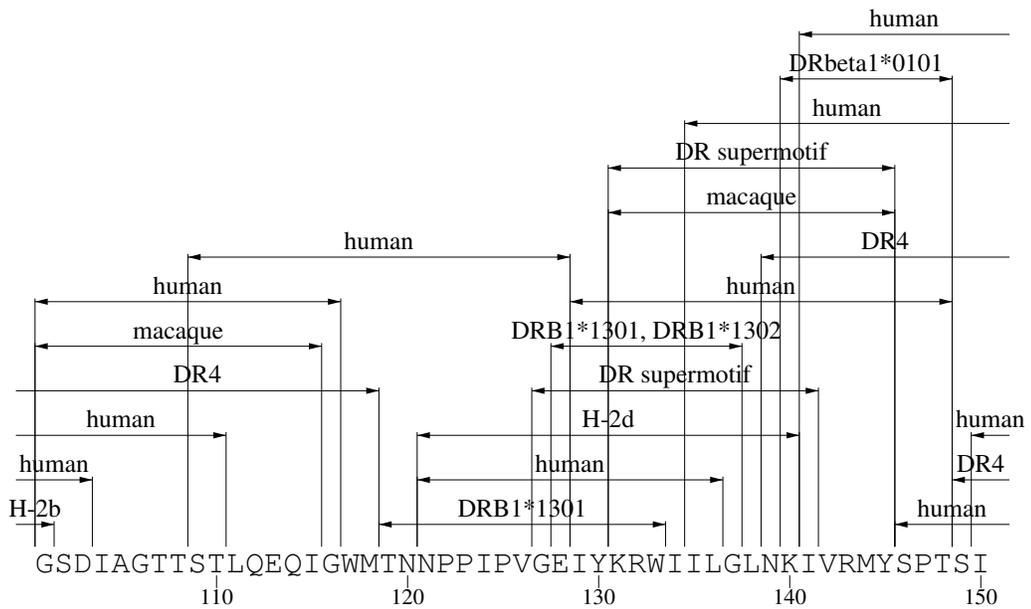


Figure 7: p24 T-Helper Map aa 151–200

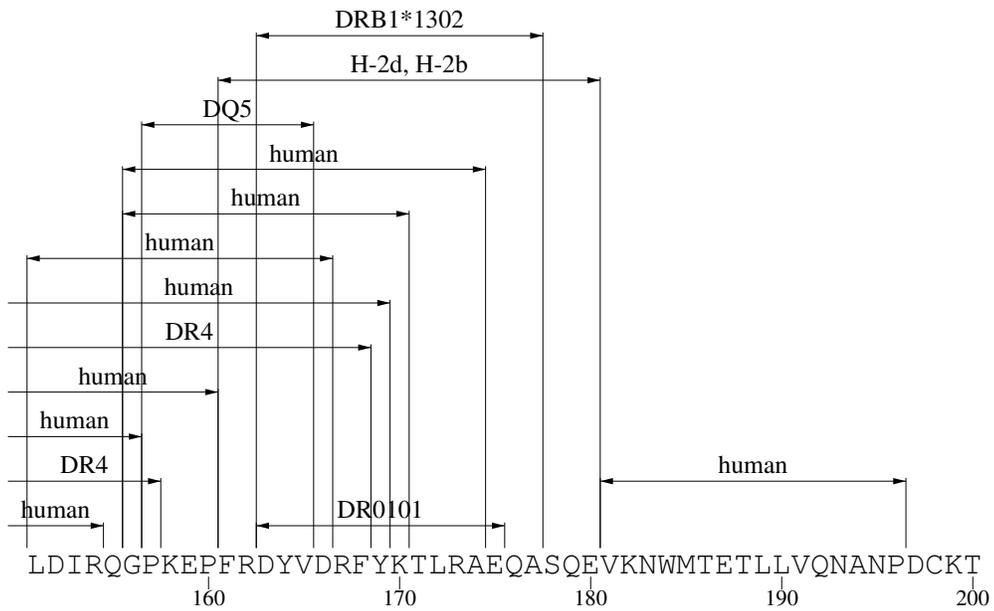


Figure 8: p24 T-Helper Map aa 201–231

ILKALGPAATLEEMMTACQG VGGPGHKARVL
 210 220 230

3 p2p7p1p6 T-Helper Epitope Map

Figure 9: p2p7p1p6 T-Helper Map aa 1–50

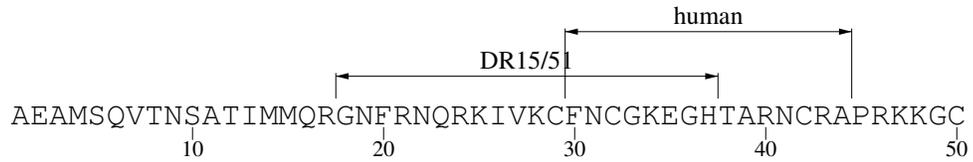


Figure 10: p2p7p1p6 T-Helper Map aa 51–100

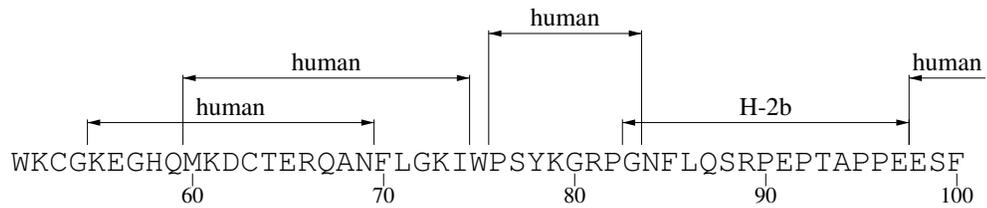
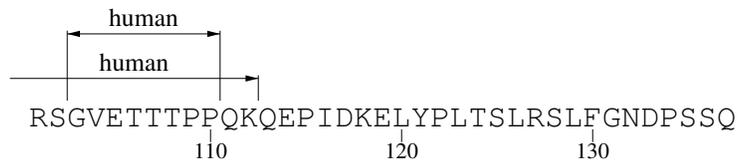


Figure 11: p2p7p1p6 T-Helper Map aa 101–137



4 Protease T-Helper Epitope Map

Figure 12: Protease T-Helper Map aa 1–50

PQVTLWQRPLVTIKIGGQLKEALLDTGADDTVLEEMSLPGRWPKMIGGI
 10 20 30 40 50

Figure 13: Protease T-Helper Map aa 51–99

GGFIKVRQYDQILIEICGHKAIGTVLVGPTPVNIIGRNLLTQIGCTLNF
 60 70 80 90

5 RT T-Helper Epitope Map

Figure 14: RT T-Helper Map aa 1–50

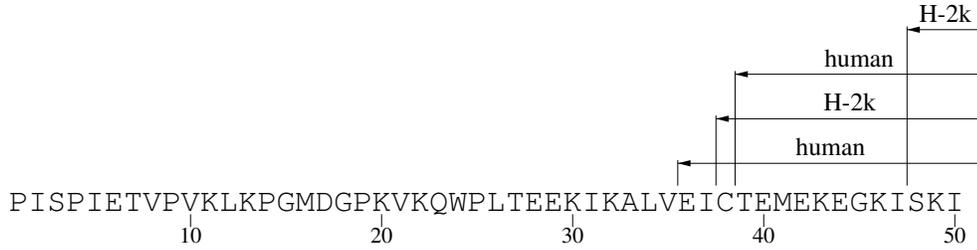


Figure 15: RT T-Helper Map aa 51–100

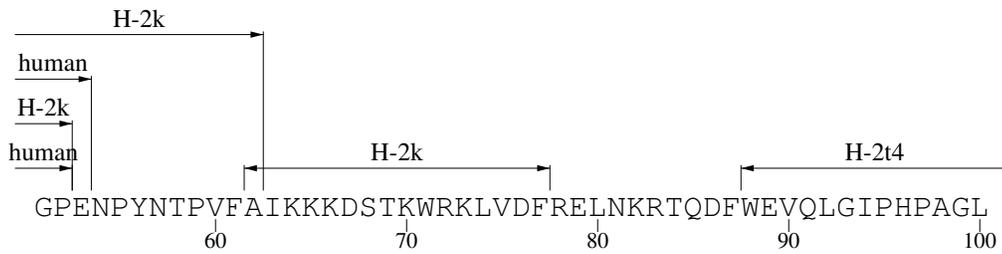


Figure 16: RT T-Helper Map aa 101–150

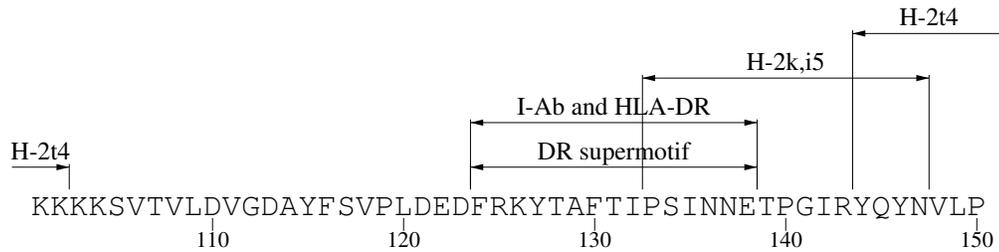


Figure 17: RT T-Helper Map aa 151–200

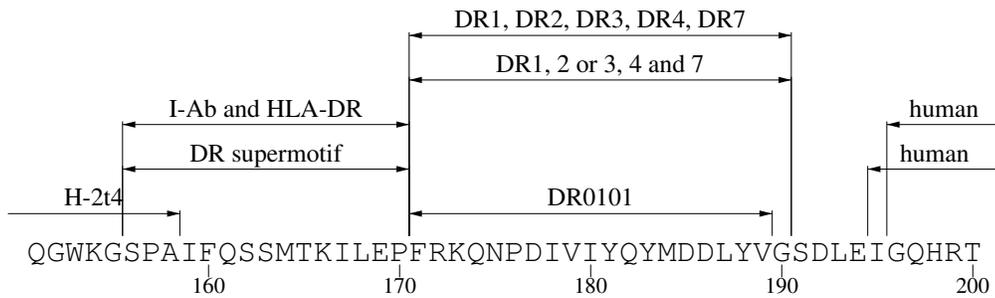


Figure 18: RT T-Helper Map aa 201–250

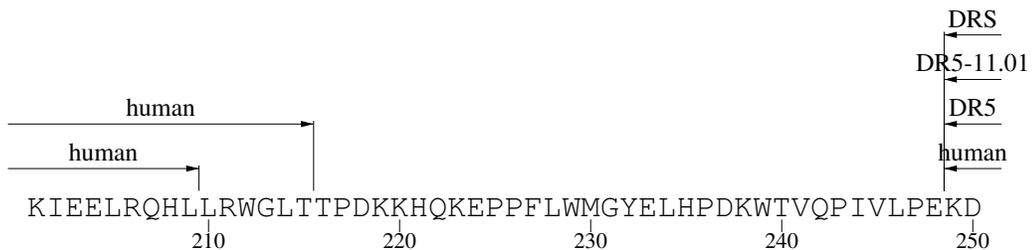


Figure 19: RT T-Helper Map aa 251–300

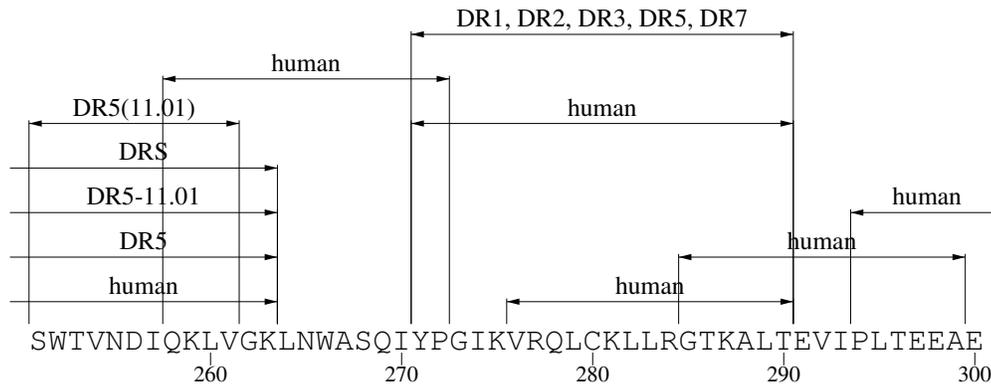


Figure 20: RT T-Helper Map aa 301–350



Figure 21: RT T-Helper Map aa 351–400



Figure 22: RT T-Helper Map aa 401–450

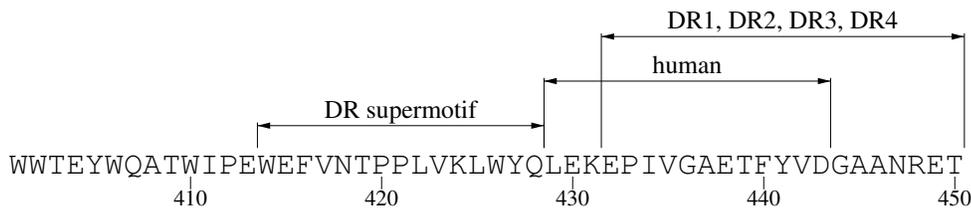


Figure 23: RT T-Helper Map aa 451–500



Figure 24: RT T-Helper Map aa 501–550

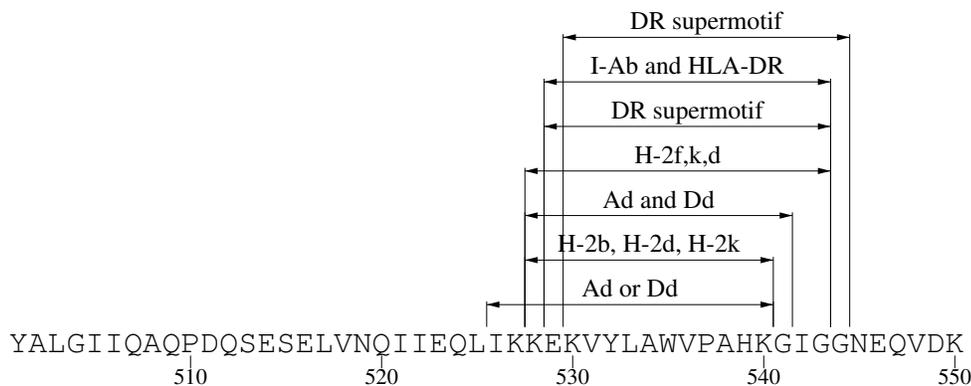
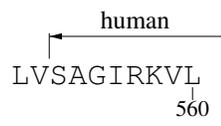


Figure 25: RT T-Helper Map aa 551–560



6 Integrase T-Helper Epitope Map

Figure 26: Integrase T-Helper Map aa 1–50



Figure 27: Integrase T-Helper Map aa 51–100



Figure 28: Integrase T-Helper Map aa 101–150



Figure 29: Integrase T-Helper Map aa 151–200

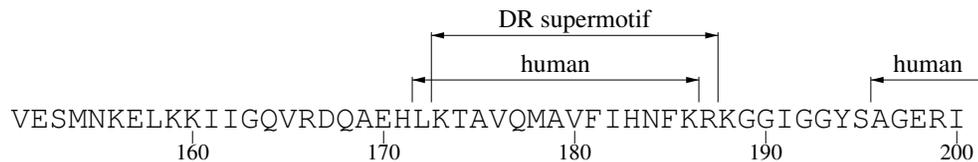


Figure 30: Integrase T-Helper Map aa 201–250

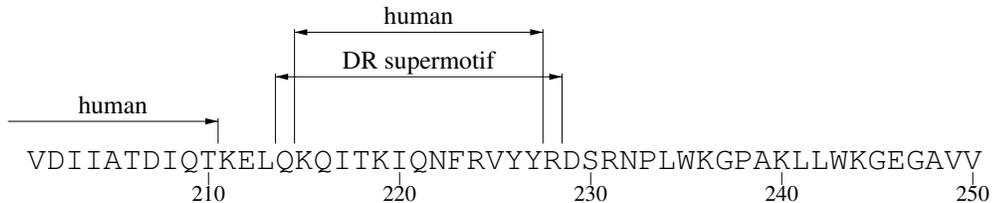


Figure 31: Integrase T-Helper Map aa 251–288



7 Rev T-Helper Epitope Map

Figure 32: Rev T-Helper Map aa 1–50

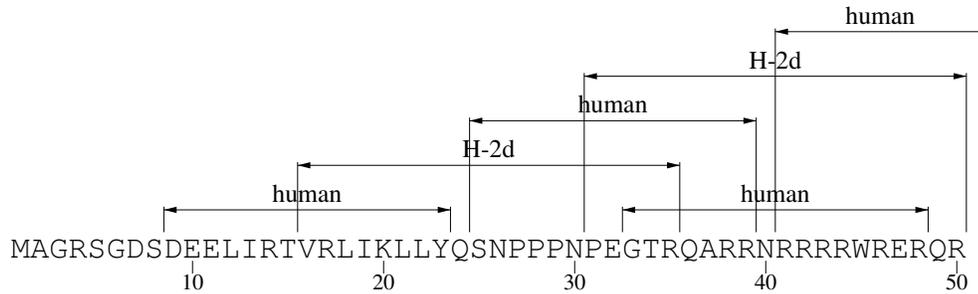


Figure 33: Rev T-Helper Map aa 51–100

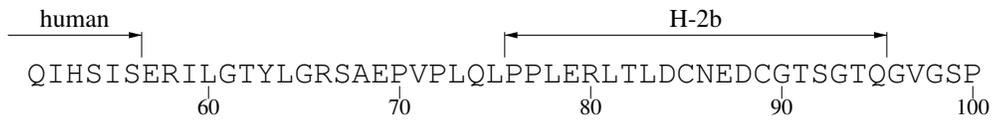


Figure 34: Rev T-Helper Map aa 101–116



8 Tat T-Helper Epitope Map

Figure 35: Tat T-Helper Map aa 1–50

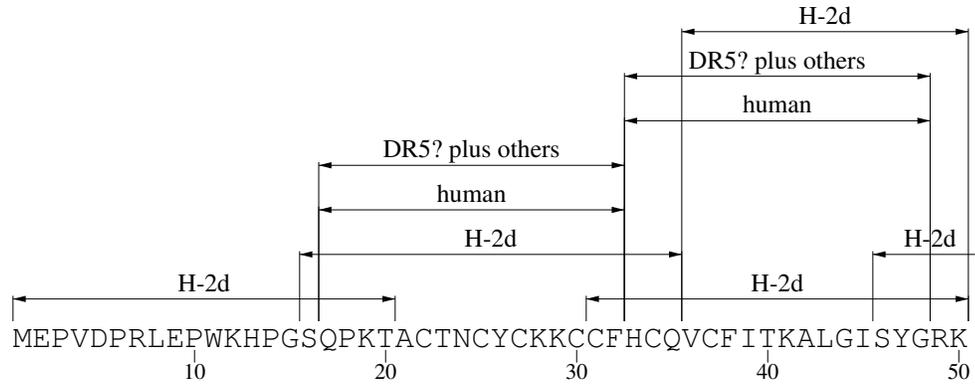


Figure 36: Tat T-Helper Map aa 51–100

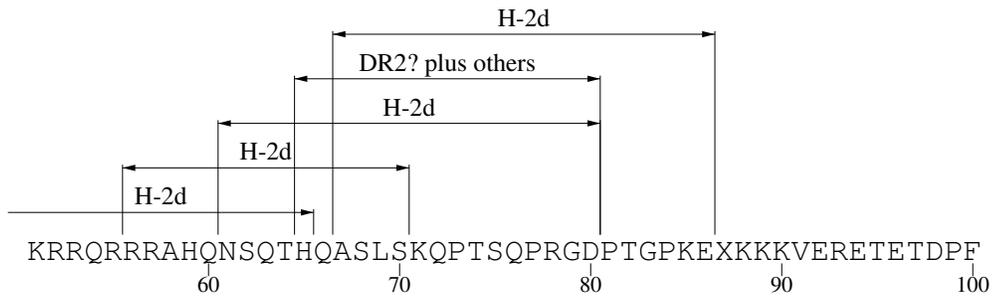


Figure 37: Tat T-Helper Map aa 101

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101

9 Vif T-Helper Epitope Map

Figure 38: Vif T-Helper Map aa 1–50

MENRWQVMIVWQVDRMRIRTWKSLVKHHMYVSGKARGWFWYRHHYESPHPR
 10 20 30 40 50

Figure 39: Vif T-Helper Map aa 51–100

ISSEVHIPLGDARLVITTYWGLHTGERDWHLGQGVSIIEWRKKRYSTQVDP
 60 70 80 90 100

human human

Figure 40: Vif T-Helper Map aa 101–150

ELADQLIHLYYFDCFSDSAIRKALLGHIVSPRCEYQAGHNKVGSLQYLAL
 110 120 130 140 150

Figure 41: Vif T-Helper Map aa 151–192

AALITPKKIKPPLPSVTKLTEDRWNKPKTKGHRGSHTMNGH
 160 170 180 190

10 Vpr T-Helper Epitope Map

Figure 42: Vpr T-Helper Map aa 1–50

MEQAPEDQGPQREPHNEWTLLELLEELKNEAVRHFPRIWLHGLGQHIYETY
 10 20 30 40 50

Figure 43: Vpr T-Helper Map aa 51–96

GDTWAGVEAIIIRILQQLFIHFRIGCRHSRIGVTRQRRARNGASRS
 60 70 80 90

11 Vpu T-Helper Epitope Map

Figure 44: Vpu T-Helper Map aa 1–50

TQPIPIVAIVALVVAIIIIAIVVWSIVIIIEYRKILRQRKIDRLIDRLIERA

10 20 30 40 50

human

Figure 45: Vpu T-Helper Map aa 51–82

EDSGNESEGEISALVEMGVEMGHHPWDVDDL

60 70 80

12 gp160 T-Helper Epitope Map

Figure 46: gp160 T-Helper Map aa 1–50

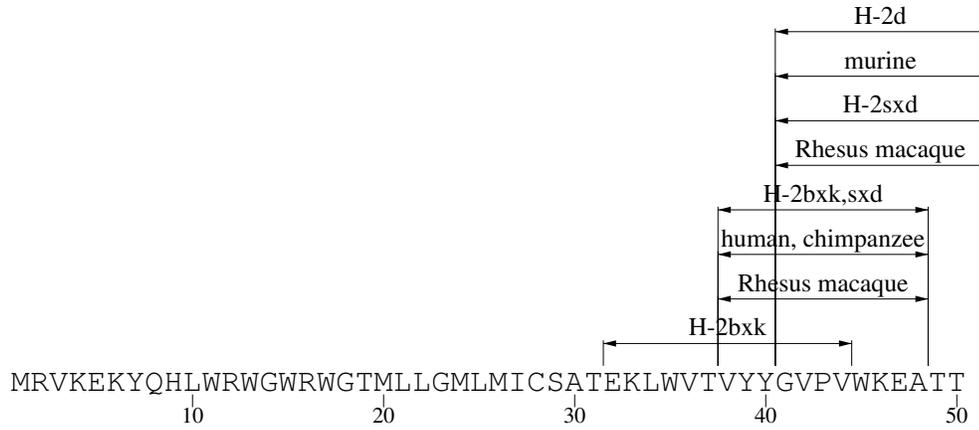


Figure 47: gp160 T-Helper Map aa 51–100

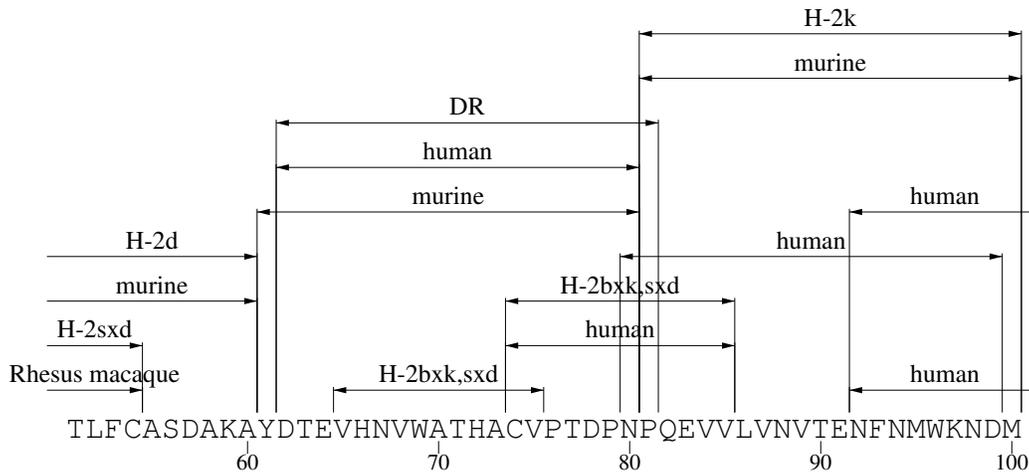


Figure 48: gp160 T-Helper Map aa 101–150

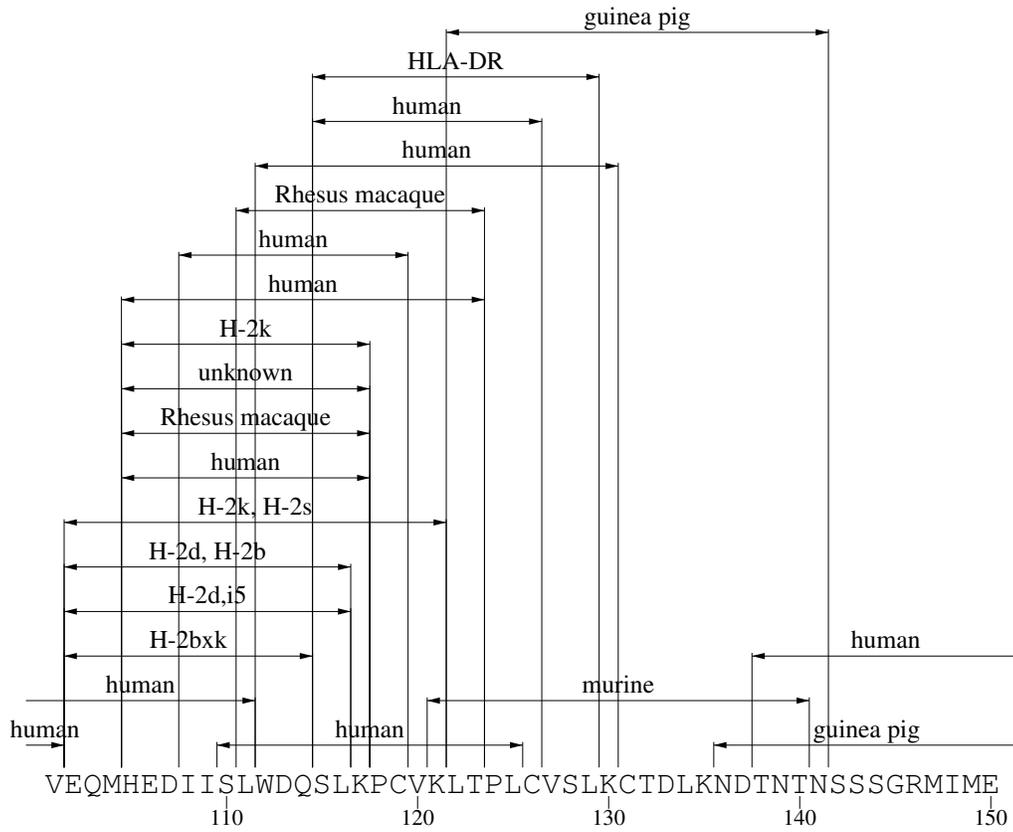


Figure 49: gp160 T-Helper Map aa 151–200

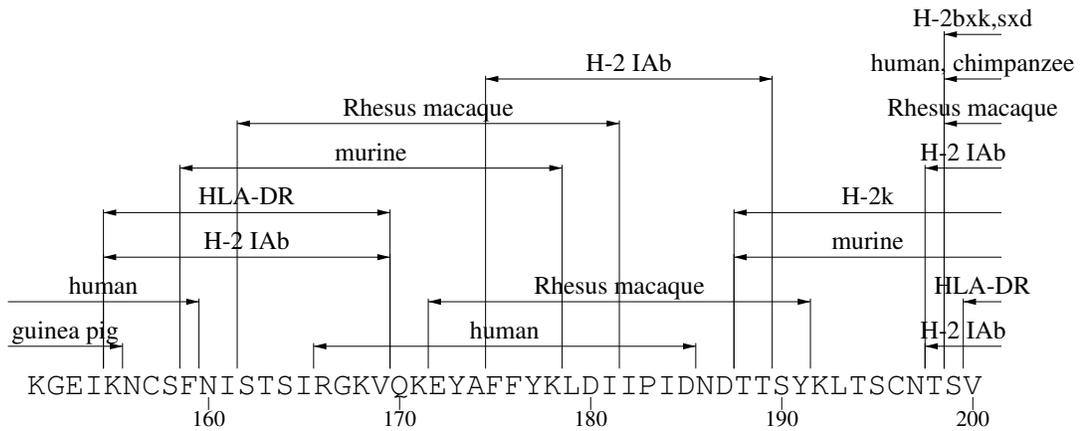


Figure 50: gp160 T-Helper Map aa 201–250

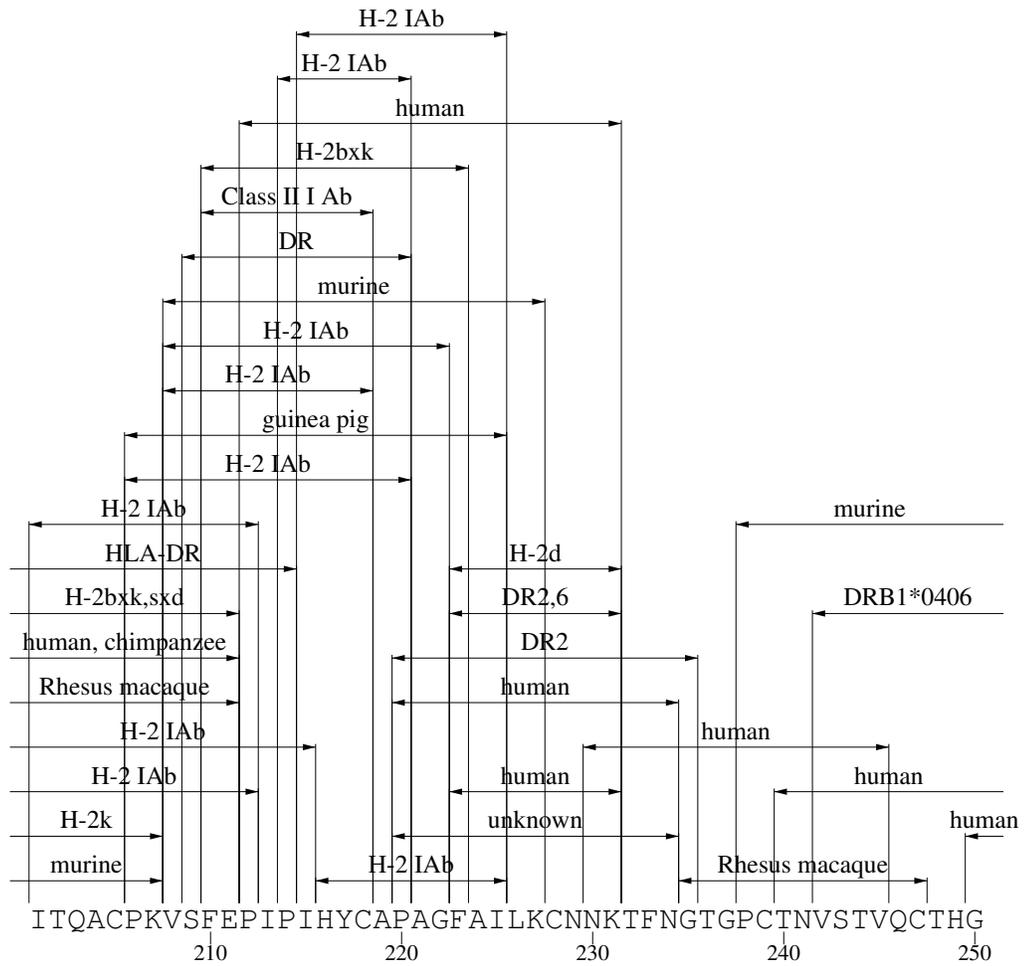


Figure 51: gp160 T-Helper Map aa 251–300

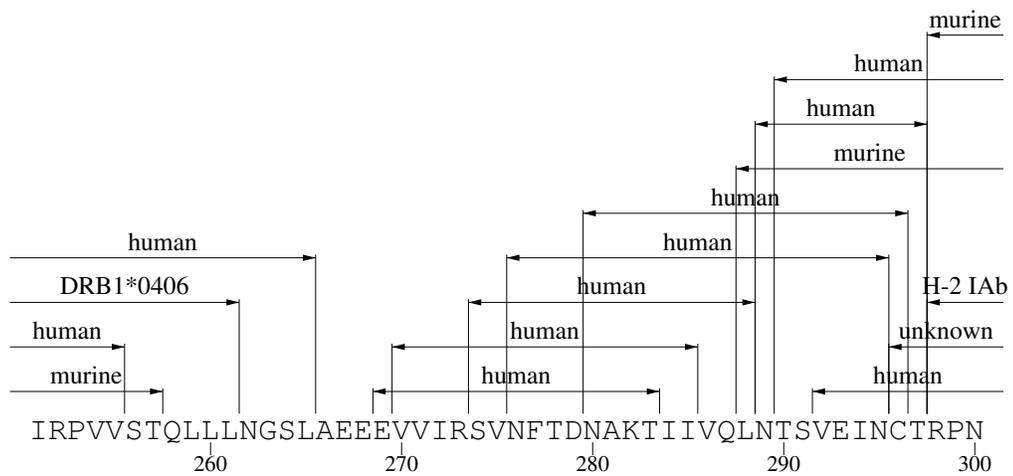


Figure 52: gp160 T-Helper Map aa 301–350

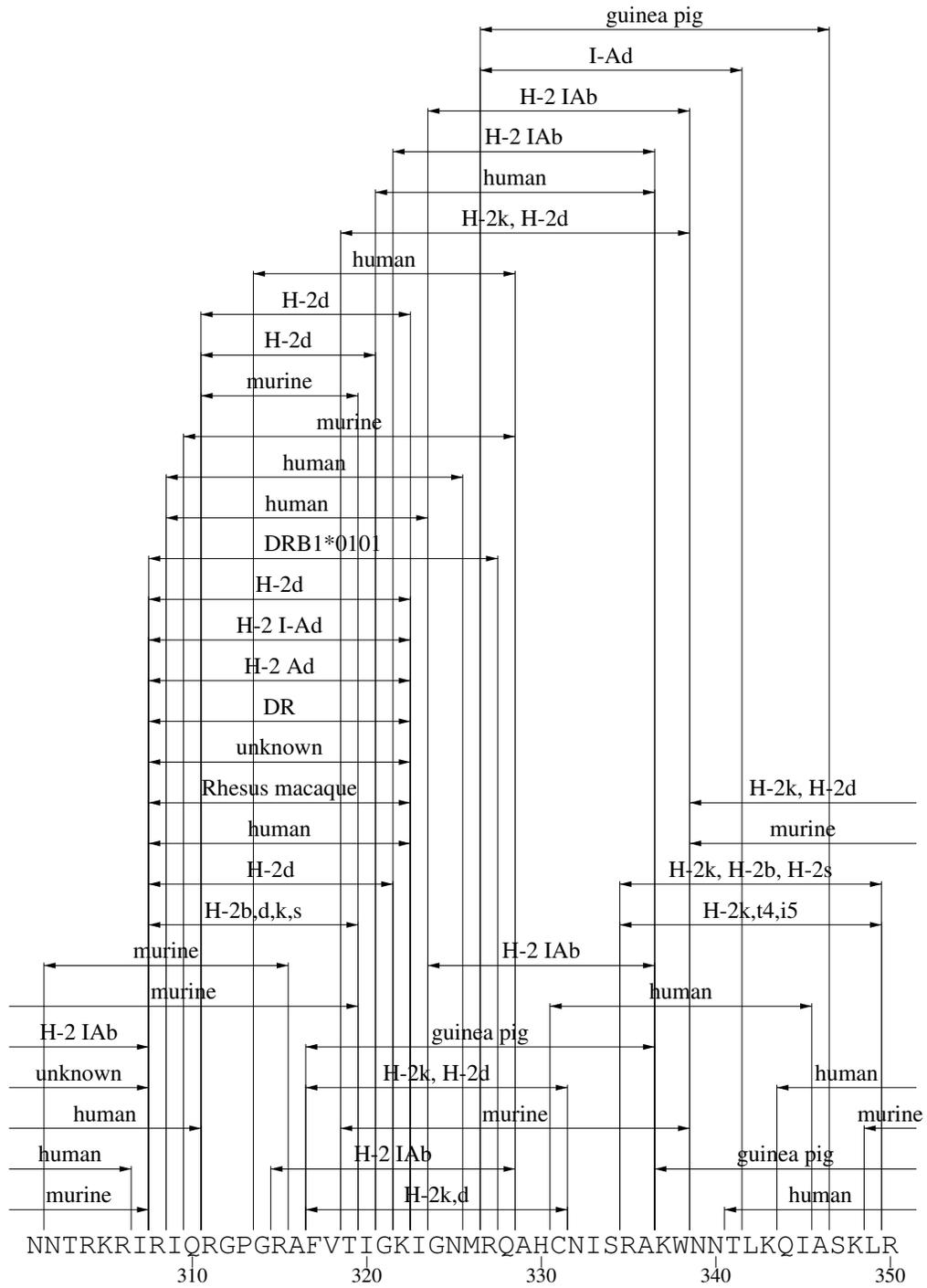


Figure 53: gp160 T-Helper Map aa 351–400

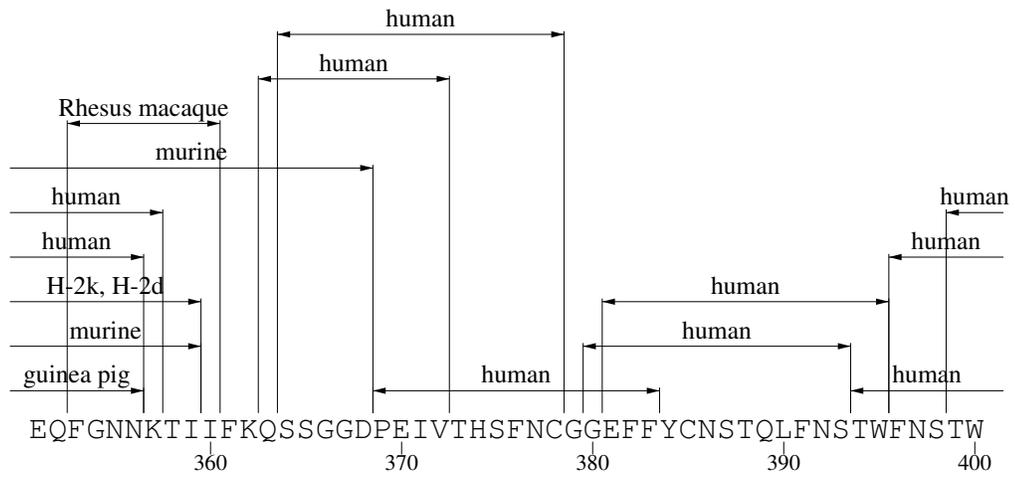


Figure 54: gp160 T-Helper Map aa 401–450

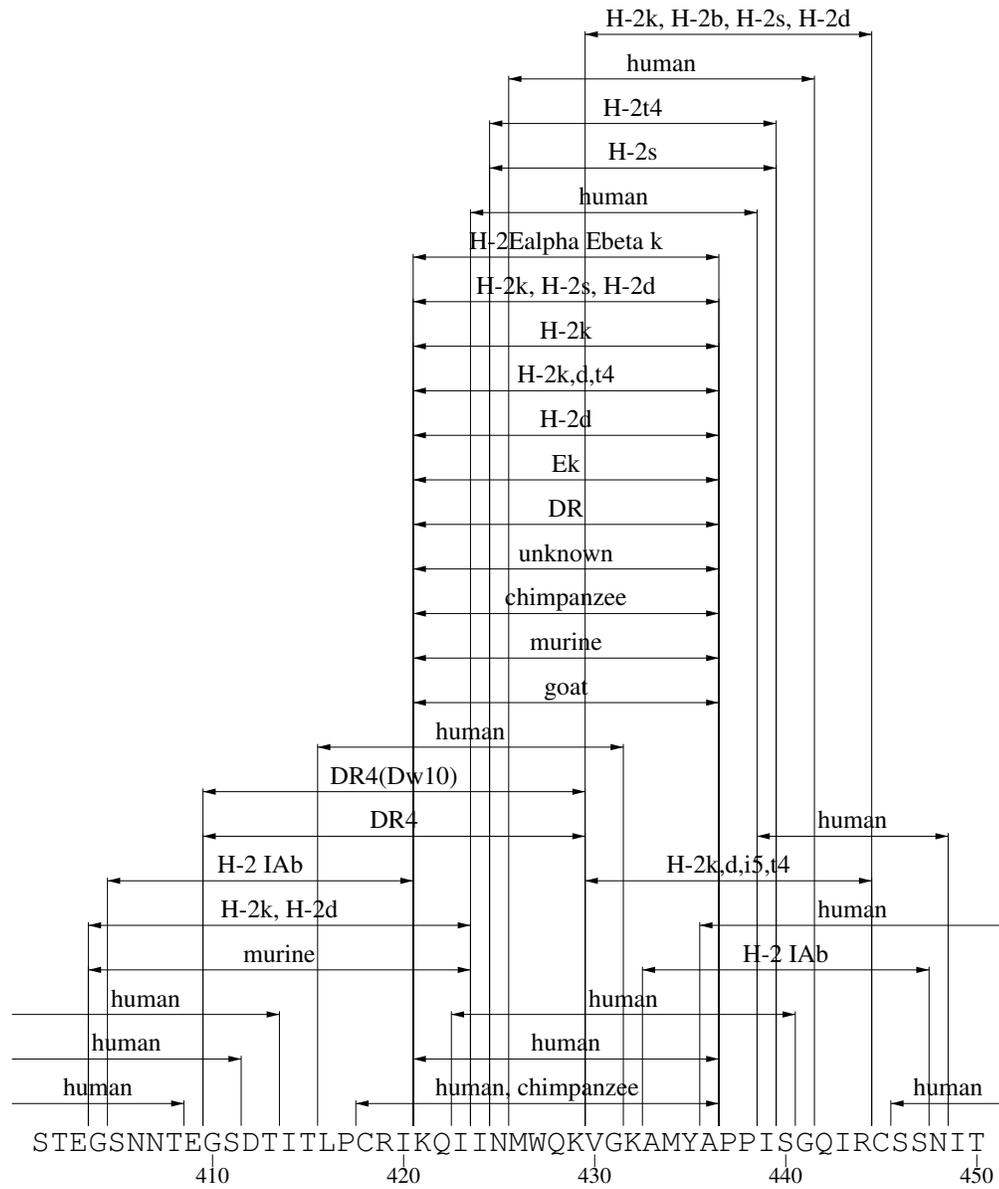


Figure 55: gp160 T-Helper Map aa 451–500

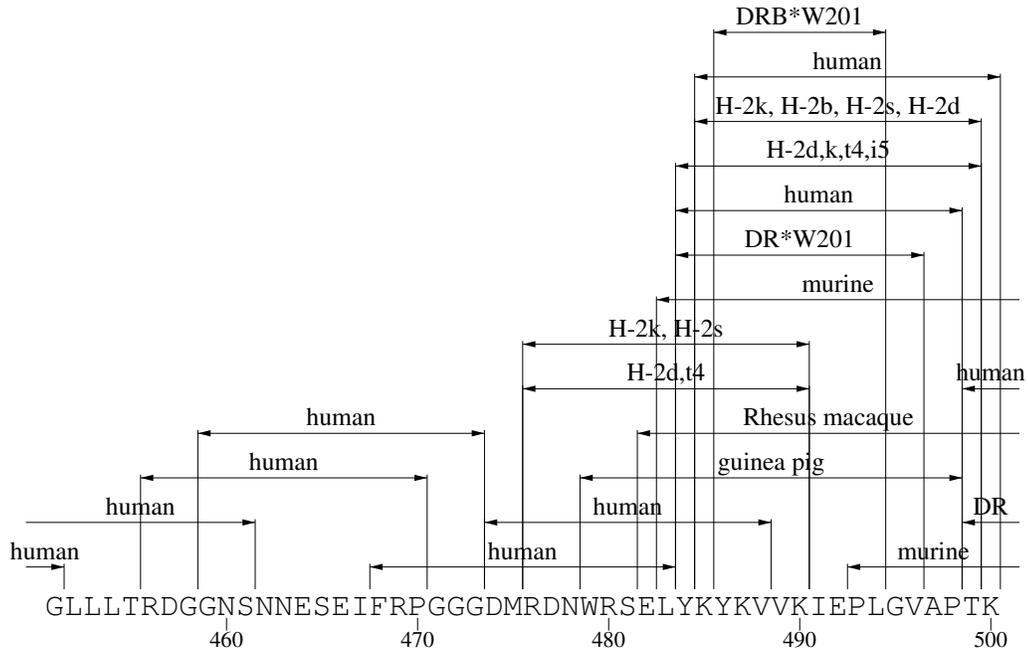


Figure 56: gp160 T-Helper Map aa 501–550

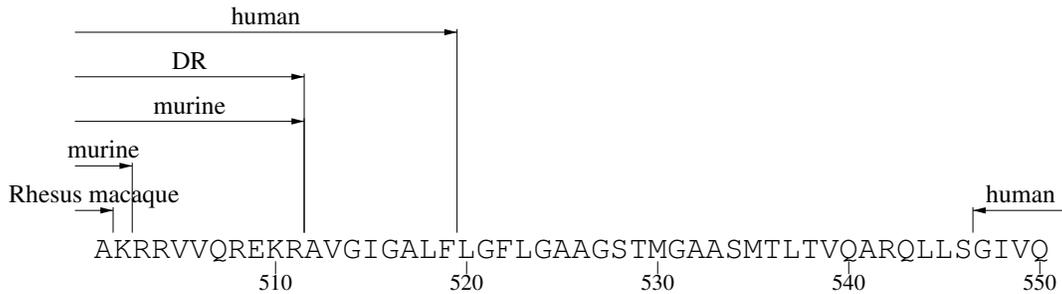


Figure 57: gp160 T-Helper Map aa 551–600

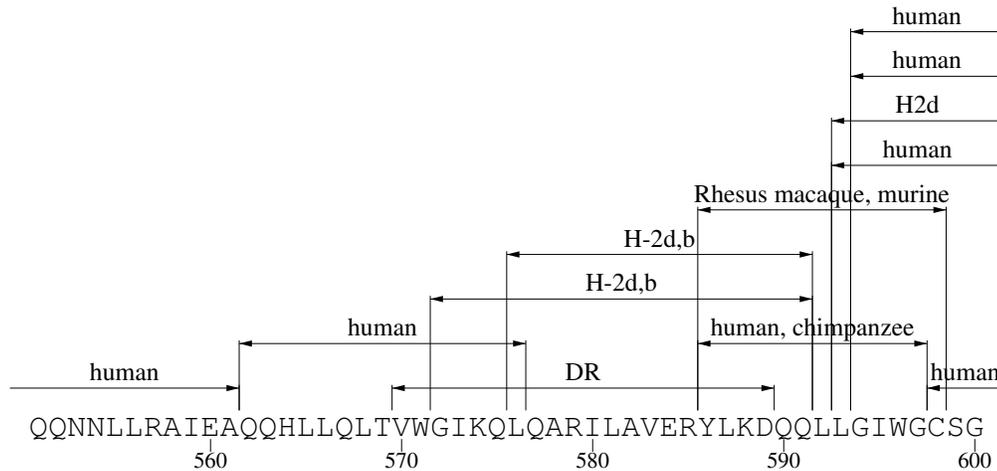


Figure 58: gp160 T-Helper Map aa 601–650

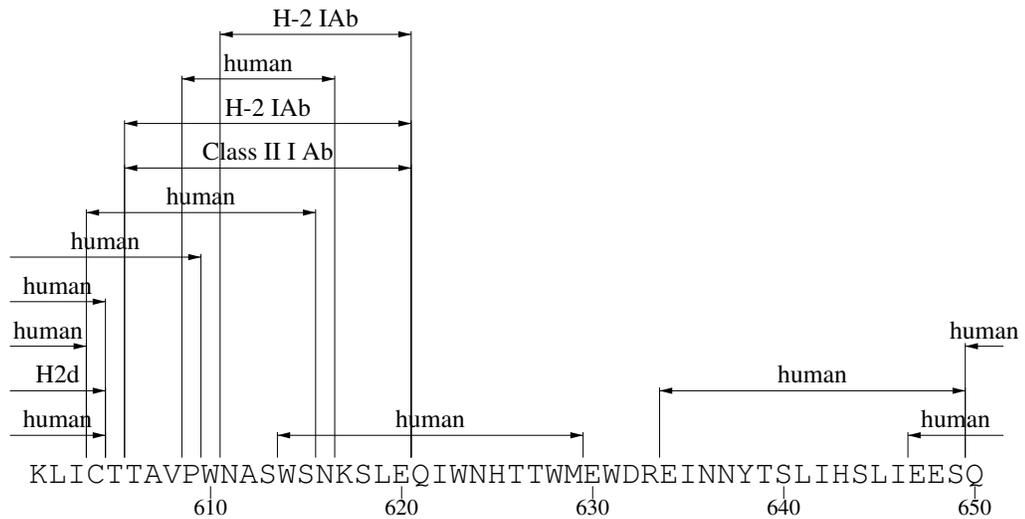


Figure 59: gp160 T-Helper Map aa 651–700

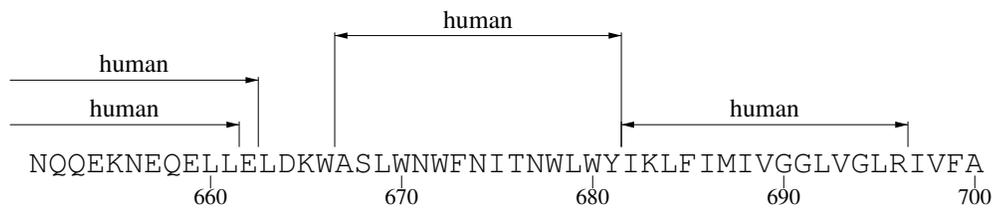


Figure 60: gp160 T-Helper Map aa 701–750



Figure 61: gp160 T-Helper Map aa 751–800

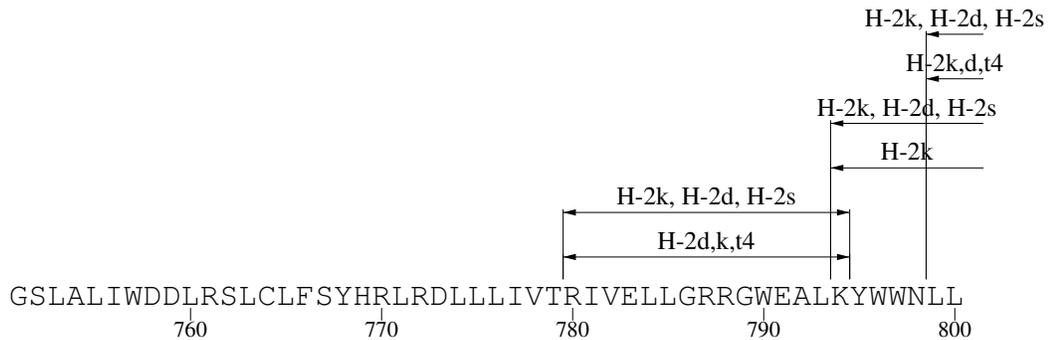


Figure 62: gp160 T-Helper Map aa 801–850

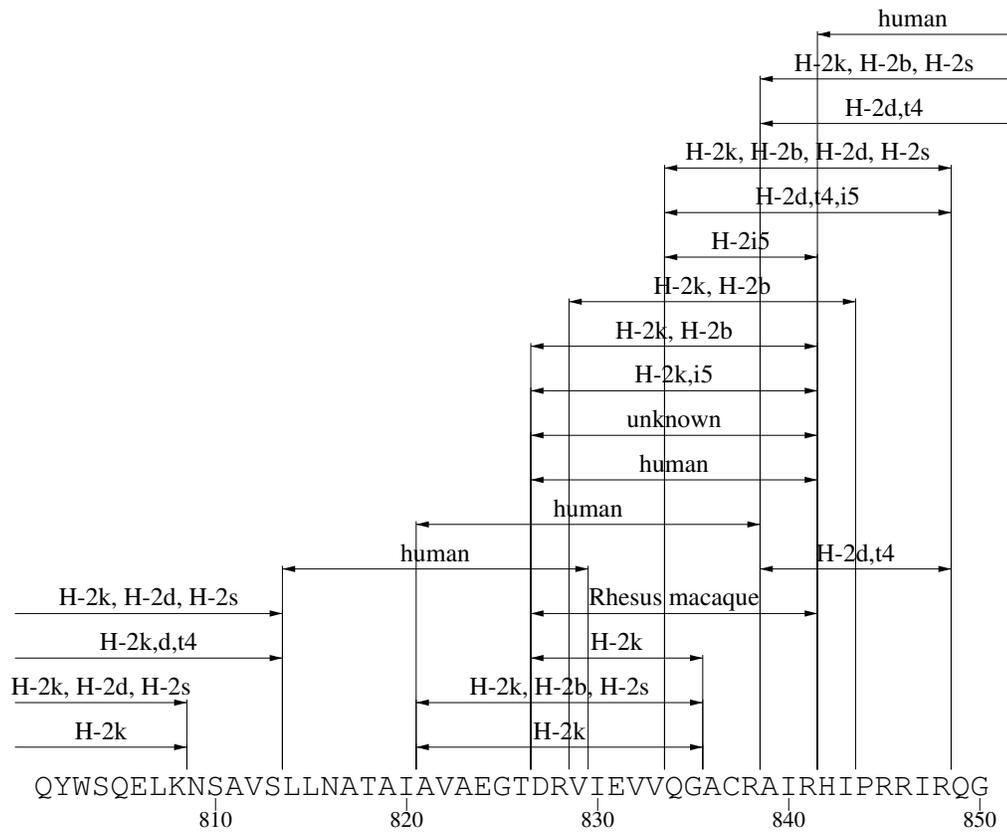
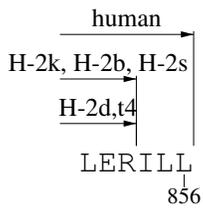


Figure 63: gp160 T-Helper Map aa 851–856



13 Nef T-Helper Epitope Map

Figure 64: Nef T-Helper Map aa 1–50

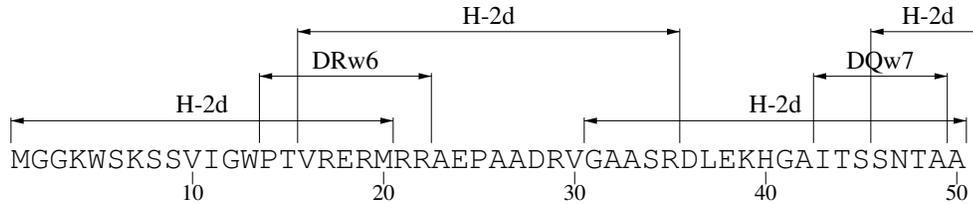


Figure 65: Nef T-Helper Map aa 51–100

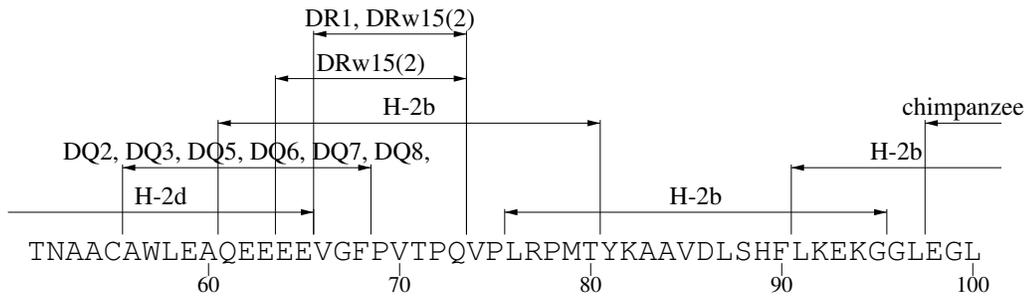


Figure 66: Nef T-Helper Map aa 101–150

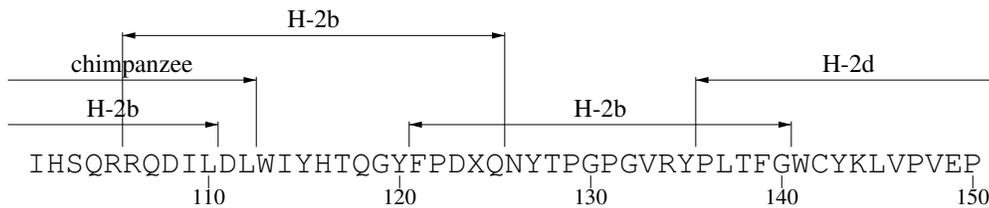


Figure 67: Nef T-Helper Map aa 151–200

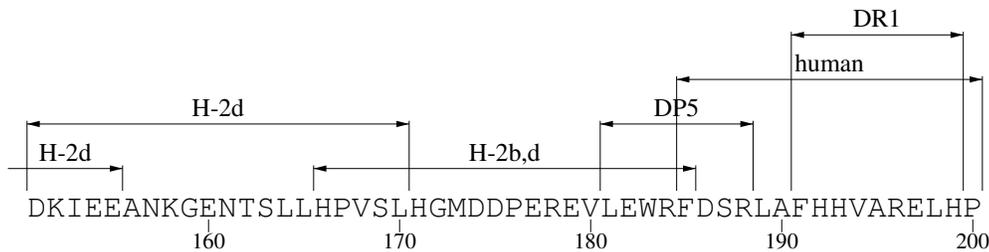


Figure 68: Nef T-Helper Map aa 201–206

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