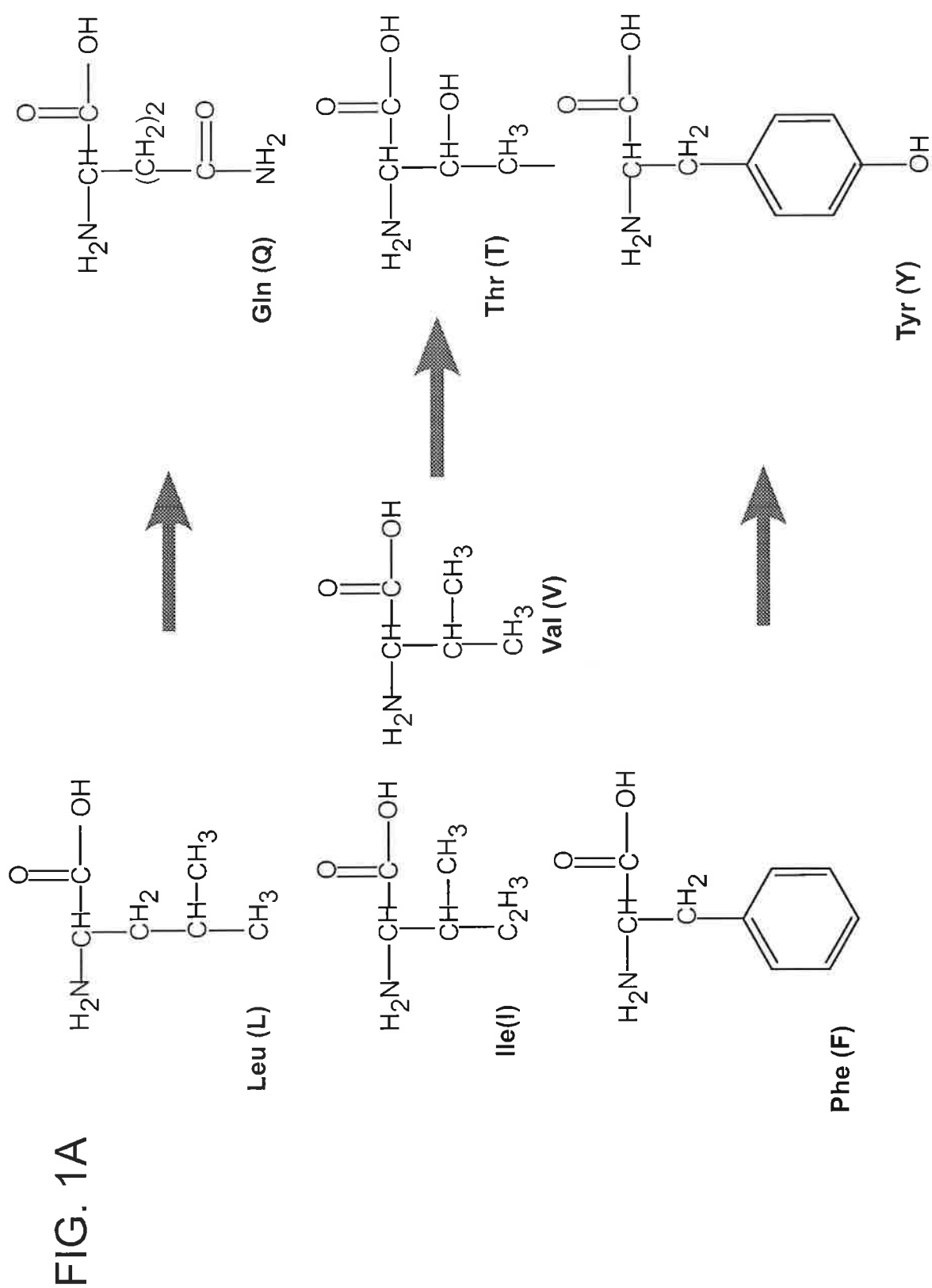


1/31



2/31

FIG. 1B

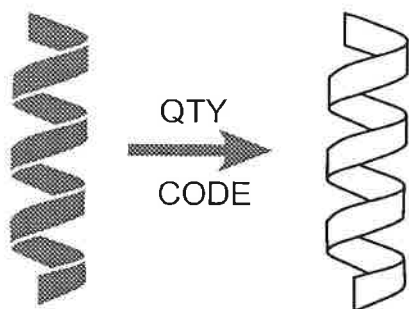


FIG. 1C

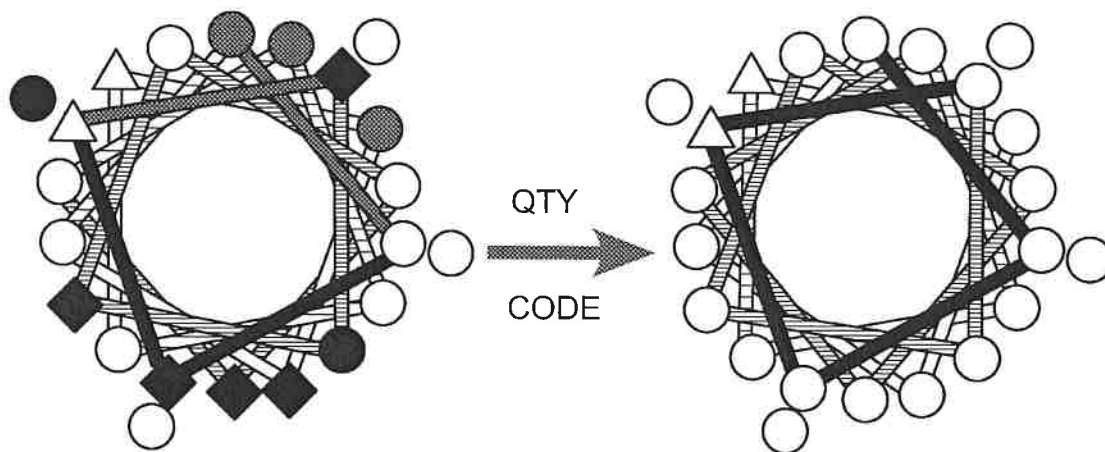
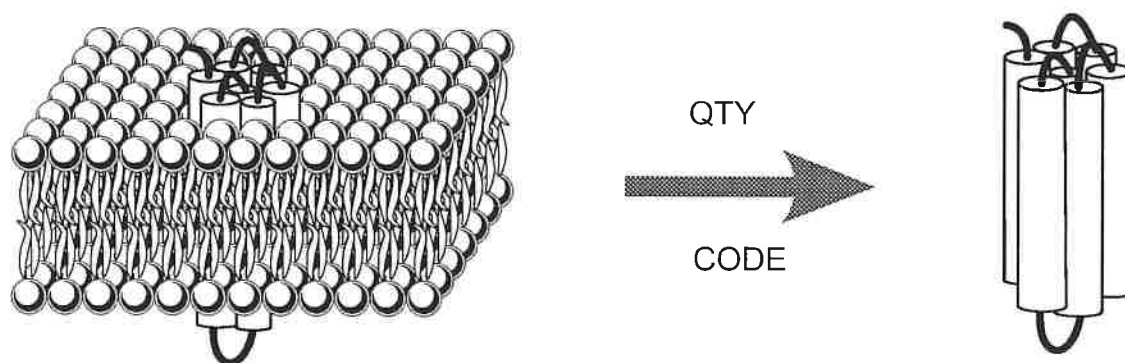


FIG. 1D



3/31

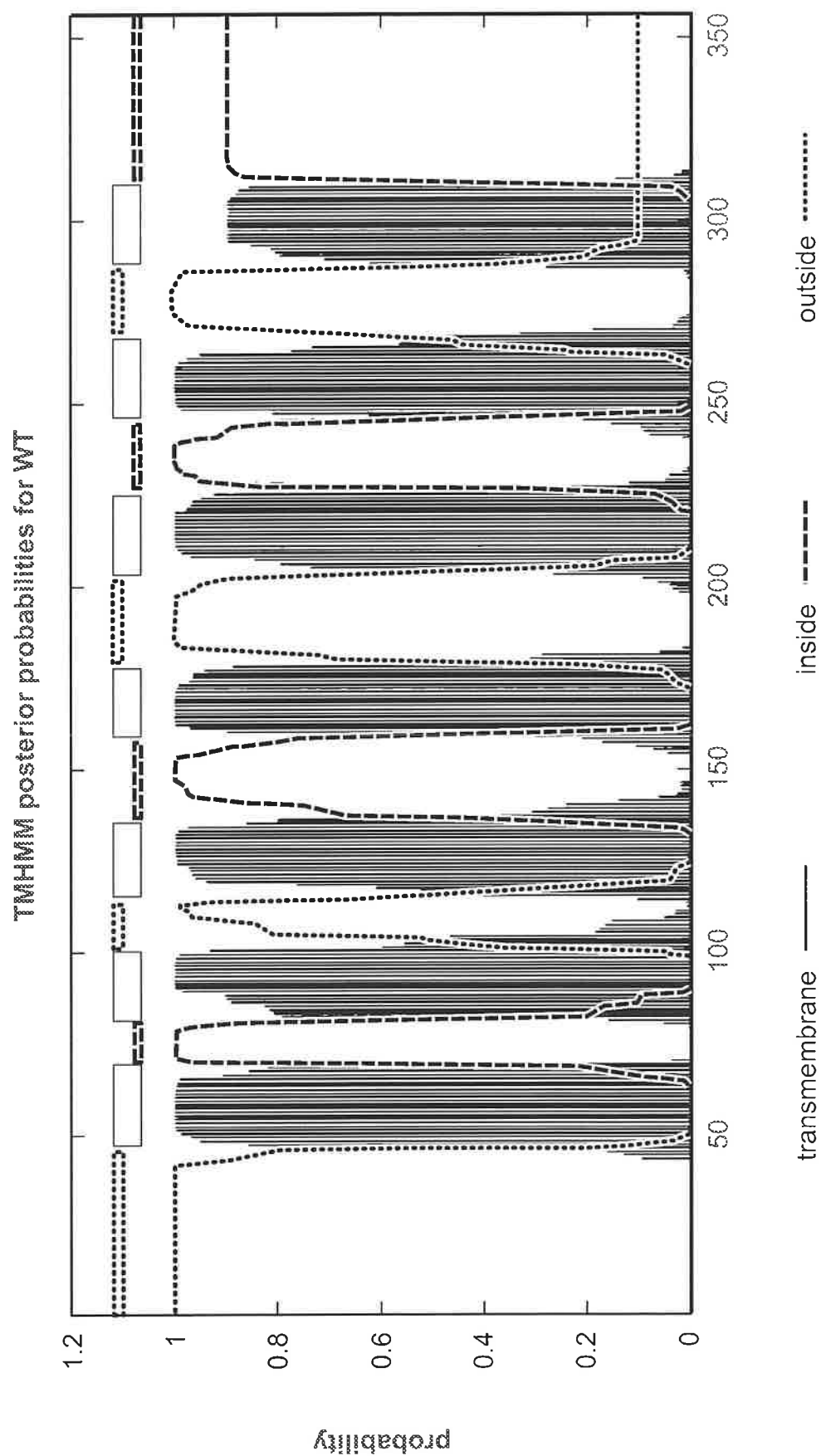


FIG. 2

4/31

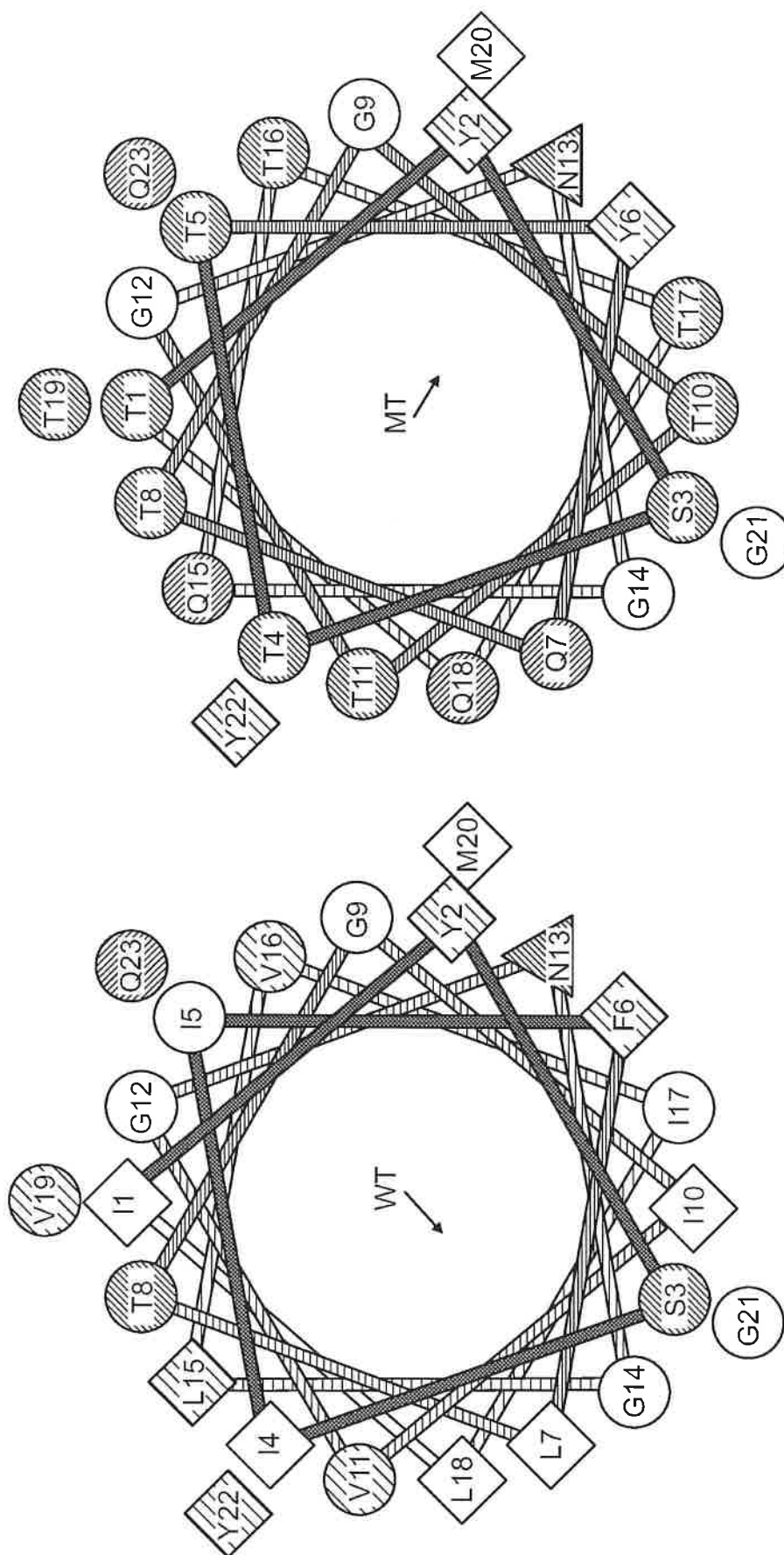


FIG. 3

[illegible]

FIG. 4 (continued)

|     |                 |                                                |     |
|-----|-----------------|------------------------------------------------|-----|
| 181 | DDRYICDRFYFNDLW | SCYCIISKLSHSGHQKRKALKT                         | 240 |
| 181 |                 | VVVFQFQHTMVGQTQPGTTTQ                          | 240 |
| 181 |                 | VVVFQFQHTMTGQTQPGTTTQ                          | 240 |
| 181 |                 | VVVFQYQHTMTGQTQPGTTTQ                          | 240 |
| 181 |                 | VVYQYQHTMTGQTQPGTTTQ                           | 240 |
| 181 |                 | TVVFQYQHTMTGQTQPGTTTQ                          | 240 |
| 181 |                 | VVTFQYQHTMTGQTQPGTTTQ                          | 240 |
| 181 |                 | TVVYQYQHTMTGQTQPGTTTQ                          | 240 |
| 181 |                 | TTTTYQYQHTMTGQTQPGTTTQ                         | 240 |
| 241 | T               | DSFILLEIIKQCEFFENTVHK                          | 300 |
| 241 |                 | VTQIQAFFACWQPYTGTST                            | 300 |
| 241 |                 | VIQIQAYFACWQPYTGTST                            | 300 |
| 241 |                 | VIQIQAYYACWQPYTGTST                            | 300 |
| 241 |                 | VIQTQAFYACWQPYTGTST                            | 300 |
| 241 |                 | VIQTQAYFACWQPYTGTST                            | 300 |
| 241 |                 | VTQIQAFYACWQPYTGTST                            | 300 |
| 241 |                 | VIQTQAYYACWQPYTGTST                            | 300 |
| 241 |                 | TTQTQAYYACWQPYTGTST                            | 300 |
| 301 |                 | AFLGAKFKTSAQHALTSVSRGSSLKILSKGRGHSSTESSESSFHSS | 352 |
| 301 | QY              |                                                | 352 |
| 301 | QY              |                                                | 352 |
| 301 | LY              |                                                | 352 |
| 301 | QY              |                                                | 352 |
| 301 | QY              |                                                | 352 |
| 301 | QY              |                                                | 352 |
| 301 | QY              |                                                | 352 |
| 301 | QY              |                                                | 352 |

WT-CXCR4  
Cxc112\_N-25\_A02\_Contig1  
Cxc112\_N-34\_A03\_Contig1  
Cxc112\_N-51\_A04\_Contig1  
Cxc112\_N-14\_B01\_Contig1  
Cxc112\_N-35\_B03\_Contig1  
Cxc112\_N-52\_B04\_Contig1  
Cxc112\_N-28\_C02\_Contig1  
Cxc112\_N-36\_C03\_Contig1  
Cxc112\_N-53\_C04\_Contig1  
Cxc112\_N-37\_D03\_Contig1  
Cxc112\_N-54\_D04\_Contig1  
Cxc112\_N-20\_E01\_Contig1  
Cxc112\_N-30\_E02\_Contig1  
Cxc112\_N-55\_E04\_Contig1  
Cxc112\_N-23\_G01\_Contig1  
Cxc112\_N-32\_G02\_Contig1  
Cxc112\_N-41\_G03\_Contig1  
Cxc112\_N-24\_H01\_Contig1  
Cxc112\_N-33\_H02\_Contig1



FIG. 5 (continued)

9/31

FIG. 5 (continued)

|                         |                                                       |                                                                     |
|-------------------------|-------------------------------------------------------|---------------------------------------------------------------------|
| WT-CXCR4                | ****.*** ** * ** :*****.***.*** ** *                  | LAEKVYVGVWIPALLTIPDFIFANVSEADDRYICDRFYPNDLWVVFQFHIMVGLILPGIVIL      |
| Cxc112_N-25_A02_Contig1 |                                                       | LAEKTTYGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ   |
| Cxc112_N-34_A03_Contig1 |                                                       | LAEKTTYGVGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ |
| Cxc112_N-51_A04_Contig1 |                                                       | LAEKTTYGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ   |
| Cxc112_N-14_B01_Contig1 |                                                       | LAEKTTYGVGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ |
| Cxc112_N-35_B03_Contig1 |                                                       | LAEKTTYGVGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ |
| Cxc112_N-52_B04_Contig1 |                                                       | LAEKTTYGVGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ |
| Cxc112_N-28_C02_Contig1 |                                                       | LAEKTTYGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ   |
| Cxc112_N-36_C03_Contig1 |                                                       | LAEKTTYGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ   |
| Cxc112_N-53_C04_Contig1 |                                                       | LAEKTTYGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ   |
| Cxc112_N-37_D03_Contig1 |                                                       | LAEKTTYGVGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ |
| Cxc112_N-54_D04_Contig1 |                                                       | LAEKTTYGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ   |
| Cxc112_N-20_E01_Contig1 |                                                       | LAEKTTYGVGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ |
| Cxc112_N-30_E02_Contig1 |                                                       | LAEKTTYGVGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ |
| Cxc112_N-55_E04_Contig1 |                                                       | LAEKTTYGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ   |
| Cxc112_N-23_G01_Contig1 |                                                       | LAEKTTYGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ   |
| Cxc112_N-32_G02_Contig1 |                                                       | LAEKTTYGVGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ |
| Cxc112_N-41_G03_Contig1 |                                                       | LAEKTTYGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ   |
| Cxc112_N-24_H01_Contig1 |                                                       | LAEKTTYGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ   |
| Cxc112_N-33_H02_Contig1 |                                                       | LAEKTTYGVGTWIPAAQQQTIPDFIFANVSEADDRYICDRFYPNDLWVVFQYQHTMTGQTQPGTTTQ |
|                         | .....160.....170.....180.....190.....200.....210..... |                                                                     |



10/31

FIG. 5 (continued)

[illegible]

[illegible]

FIG. 6

|                 |                            |        |                           |                |
|-----------------|----------------------------|--------|---------------------------|----------------|
| wt              | MDQFPESVTENFEYDDDLAEACYIGD | IVVFGT | VFLSIFYSVIFAIGLVGNLLVVFAL | TNSKKPKSVTDIYL |
| D03 N-Cx3c11_2  | MDQFPESVTENFEYDDDLAEACYIGD | IVVFGT | TYQSTYYSTTYATGQVGNQVVFAL  | TNSKKPKSVTDIYL |
| D04 N-Cx3c11_3  | MDQFPESVTENFEYDDDLAEACYIGD | IVVFGT | TYQSTYYSTTYATGQVGNQVVFAL  | TNSKKPKSVTDIYL |
| D05 N-Cx3c11_4  | MDQFPESVTENFEYDDDLAEACYIGD | IVVFGT | TYQSTYYSTTYATGQVGNQVVFAL  | TNSKKPKSVTDIYL |
| D09 N-Cx3c11_8  | MDQFPESVTENFEYDDDLAEACYIGD | IVVFGT | TYQSTYYSTTYATGQVGNQVVFAL  | TNSKKPKSVTDIYL |
| D10 N-Cx3c11_9  | MDQFPESVTENFEYDDDLAEACYIGD | IVVFGT | TYQSTYYSTTYATGQVGNQVVFAL  | TNSKKPKSVTDIYL |
| D11 N-Cx3c11_10 | MDQFPESVTENFEYDDDLAEACYIGD | IVVFGT | TYQSTYYSTTYATGQVGNQVVFAL  | TNSKKPKSVTDIYL |
| E04 N-Cx3c11_15 | MDQFPESVTENFEYDDDLAEACYIGD | IVVFGT | TYQSTYYSTTYATGQVGNQVVFAL  | TNSKKPKSVTDIYL |

1.....10.....20.....30.....40.....50.....60.....70







FIG. 6 (continued)

\*\*\*\*\* .. : : \*\*\*\*\* \* : \* \*\*\*\*\* \* : \* \*\*\*\*\* \* : \* \*\*\*\*\*  
CKNHKKAKAIKLIILLVIVFFLFWTPYNVMIFLETCLKLYDFFPSCDMRKDLRLALSVTETVAFSHCCCLNPLIYAFAGEKF 300  
CKNHKKAKAIKQIQQTTFYQYWTYPYNTMTYQETQKLYDFFPSCDMRKDLRLAQSVTETTAYSHCCQNPQTYAYAGEKF 300  
CKNHKKAKAIKLTQQTTFYQYWTYPYNTMTFQETQKLYDFFPSCDMRKDLRLALSVTETVAFSHCCQNPQTYAYAGEKF 300  
CKNHKKAKAIKQIQQTTFYQYWTYPYNTMTYQETQKLYDFFPSCDMRKDLRLAQSVTETTAFSHCCQNPQIYAYAGEKF 300  
CKNHKKAKAIKLIQQTTFYQYWTYPYNTMTFQETQKLYDFFPSCDMRKDLRLALSTTETTAYSHCCQNPQTYAYAGEKF 300  
CKNHKKAKAIKLIQQTTFYQYWTYPYNTMTFQETCLKLYDFFPSCDMRKDLRLAQSVTETTAYSHCCQNPQTYAYAGEKF 300  
CKNHKKAKAIKLIQQTTFYQYWTYPYNTMTFQETCLKLYDFFPSCDMRKDLRLAQSVTETVAFSHCCQNPQIYAYAGEKF 300  
CKNHKKAKAIKQIQQTTFYQYWTYPYNTMTYQETQKLYDFFPSCDMRKDLRLAQSVTETTAYSHCCQNPQTYAYAGEKF 300  
.....230.....240.....250.....260.....270.....280.....290.....300



FIG. 6 (continued)

|                 |       |                                          |       |                           |     |
|-----------------|-------|------------------------------------------|-------|---------------------------|-----|
| wt              | ***** | RRLYLHLYGKCLAVLCGRSVHVD                  | FSSSE | QSRSRHGSLSSNFTYHTSDGDALLL | 355 |
| D03 N-Cx3c11 2  | ***** | RRLYLHLYGKCLAVLCGRSVHVD                  | FSSSE | QSRSRHGSLSSNFTYHTSDGDALLL | 355 |
| D04 N-Cx3c11 3  | ***** | RRLYLHLYGKCLAVLCGRSVHVD                  | FSSSE | QSRSRHGSLSSNFTYHTSDGDALLL | 355 |
| D05 N-Cx3c11 4  | ***** | RRLYLHLYGKCLAVLCGRSVHVD                  | FSSSE | QSRSRHGSLSSNFTYHTSDGDALLL | 355 |
| D09 N-Cx3c11 8  | ***** | RRLYLHLYGKCLAVLCGRSVHVD                  | FSSSE | QSRSRHGSLSSNFTYHTSDGDALLL | 355 |
| D10 N-Cx3c11 9  | ***** | RRLYLHLYGKCLAVLCGRSVHVD                  | FSSSE | QSRSRHGSLSSNFTYHTSDGDALLL | 355 |
| D11 N-Cx3c11 10 | ***** | RRLYLHLYGKCLAVLCGRSVHVD                  | FSSSE | QSRSRHGSLSSNFTYHTSDGDALLL | 355 |
| E04 N-Cx3c11 15 | ***** | RRLYLHLYGKCLAVLCGRSVHVD                  | FSSSE | QSRSRHGSLSSNFTYHTSDGDALLL | 355 |
|                 | ..... | 310.....320.....330.....340.....350..... |       |                           |     |



ccr3-wt  
1116 Contig1  
2 Contig1  
23 Contig1  
25 Contig1  
26 Contig1  
27 Contig1  
36 Contig1  
42 Contig1  
97 Contig1  
BS\_15 Contig1  
BS\_25 Contig1  
1.....10.....20.....30.....40.....50.....60.....70.....

ccr3-wt  
1116\_Contig1  
2\_Contig1  
23\_Contig1  
25\_Contig1  
26\_Contig1  
27\_Contig1  
36\_Contig1  
42\_Contig1  
97\_Contig1  
BS\_15\_Contig1  
BS\_25\_Contig1



FIG. 7 (continued)

|               |                                                                          |
|---------------|--------------------------------------------------------------------------|
| ccr3-wt       | . ** . *** * ** ** : ***** : * . * ** ****                               |
| 116 Contig1   | VITSIVTWGLAVLAALPEFIFYETEELFEETLCSALYPEDTVYSWRHFHTLRMTIFCLVLP LLVMAICYTG |
| 2 Contig1     | TTTSTVTWGQAVQAAQPEFIFYETEELFEETLCSALYPEDTVYSWRHFHTLRMTIYCQVQPQQVMATCYTG  |
| 23 Contig1    | TTTSTTTWGQATQAAQPEFIFYETEELFEETLCSALYPEDTVYSWRHFHTLRMTIYCQVQPQQVMATCYTG  |
| 25 Contig1    | TTTSTTTWGQATQAAQPEFIFYETEELFEETLCSALYPEDTVYSWRHFHTLRMTIYCQVQPQQVMATCYTG  |
| 26 Contig1    | TTTSTTTWGQAVQAAQPEFIFYETEELFEETLCSALYPEDTVYSWRHFHTLRMTIFCQTQPPQQTMATCYTG |
| 27 Contig1    | TTTSTTTWGQATQAAQPEFIFYETEELFEETLCSALYPEDTVYSWRHFHTLRMTIYCQVQPQQTMATCYTG  |
| 36 Contig1    | TTTSTTTWGQAVQAAQPEFIFYETEELFEETLCSALYPEDTVYSWRHFHTLRMTIYCQVQPQQVMATCYTG  |
| 42 Contig1    | TTTSTTTWGQATQAAQPEFIFYETEELFEETLCSALYPEDTVYSWRHFHTLRMTIFCQTQPPQQTMATCYTG |
| 97 Contig1    | TTTSTTTWGQATQAAQPEYTYETEELFEETLCSALYPEDTVYSWRHFHTLRMTIFCQVQPQQTMATCYTG   |
| BS_15 Contig1 | TTTSTVTWGQAVQAAQPEFTFYETEELFEETLCSALYPEDTVYSWRHFHTLRMTIFCQTQPPQQTMATCYTG |
| BS_25 Contig1 | TTTSTTTWGQATQAAQPEFIFYETEELFEETLCSALYPEDTVYSWRHFHTLRMTIYCQVQPQQVMATCYTG  |
|               | .....160.....170.....180.....190.....200.....210.....220.                |

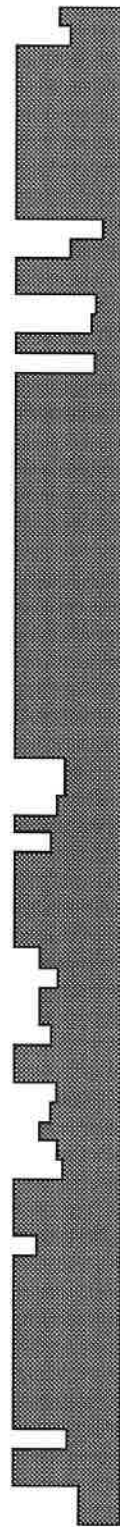


FIG. 7 (continued)

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** *****:*** :. ** :.: :*****. * **********. * ** *****.
I I K T L L R C P S K K K Y K A I R Q T Y T T M A T Y Y T Y W T P Y N T A T Q Q S S Y Q S I L F G N D C E R S K H L D L V M L V T E V I A Y S H C C M N P V I 300
T T K T L L R C P S K K K Y K A I R Q T Y T T M A T Y Y T Y W T P Y N T A T Q Q S S Y Q S I L F G N D C E R S K H L K L T M Q T T E T T A Y S H C C M N P T T 300
T T K T L L R C P S K K K Y K A I R Q T Y T T M A T Y Y T Y W T P Y N T A T Q Q S S Y Q S I L F G N D C E R S K H L D L V M Q V T E T T A Y S H C C M N P V T 300
T T K T L L R C P S K K K Y K A I R Q T Y T T M A T Y Y T Y W T P Y N T A T Q Q S S Y Q S I L F G N D C E R S K H L D L V M Q V T E T T A Y S H C C M N P T T 300
I T K T L L R C P S K K K Y K A I R Q T Y T T M A T Y Y T Y W T P Y N T A T Q Q S S Y Q S I L F G N D C E R S K H L D L T M Q T T E T T A Y S H C C M N P T T 300
T T K T L L R C P S K K K Y E A I R Q T Y T T M A T Y Y T Y W T P Y N T A T Q Q S S Y Q S I L F G N D C E R S K H L D L T M Q V T E T I A Y S H C C M N P T T 300
T I K T L L R C P S K K K Y K A I R Q T Y T T M A T Y Y T Y W T P Y N T A T Q Q S S Y Q S I L F G N D C E R S K H L D L V M Q T T E T I A Y S H C C M N P T T 300
T T K T P L R C P S K K K Y K A I R Q T Y T T M A T Y Y T Y W T P Y N T A T Q Q S S Y Q S I L F G N D C E R S K H L D L T M Q V T E T I A Y S H C C M N P T T 300
T T K T L L R C P S K K K Y K A I R Q T Y T T M A T Y Y T Y W T P Y N T A T Q Q S S Y Q S I L F G N D C E R S K H L D L V M L T T E V T A Y S H C C M N P T T 300
T T K T L L R C P S K K K Y K A I R Q T Y T T M A T Y Y T Y W T P Y N T A T Q Q S S Y Q S I L F G N D C E R S K H L D L T M Q V T E T I A Y S H C C M N P T T 300
T T K T L L R C P S K K K Y K A I R Q T Y T T M A T Y Y T Y W T P Y N T A T Q Q S S Y Q S I L F G N D C E R S K H L D L T M Q V T E T I A Y S H C C M N P T T 300
T T K T L L R C P S K K K Y K A I R Q T Y T T M A T Y Y T Y W T P Y N T A T Q Q S S Y Q S I L F G N D C E R S K H L D L T M Q T T E T T A Y S H C C M N P T T 300
..... 230 ..... 240 ..... 250 ..... 260 ..... 270 ..... 280 ..... 290 ..... 300

```



ccr3-wt  
1116 Contig1  
2 Contig1  
23 Contig1  
25 Contig1  
26 Contig1  
27 Contig1  
36 Contig1  
42 Contig1  
97 Contig1  
BS\_15 Contig1  
BS\_25 Contig1

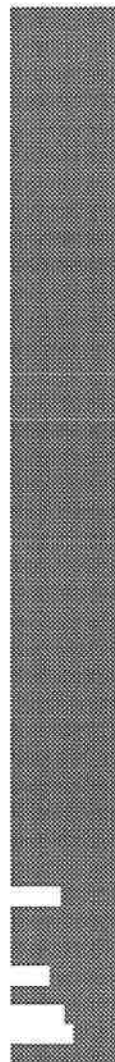


FIG. 8

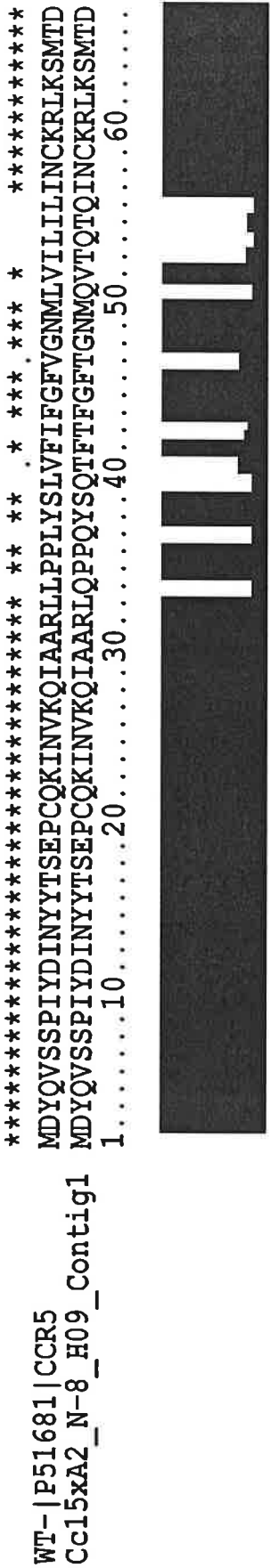


FIG. 8 (continued)

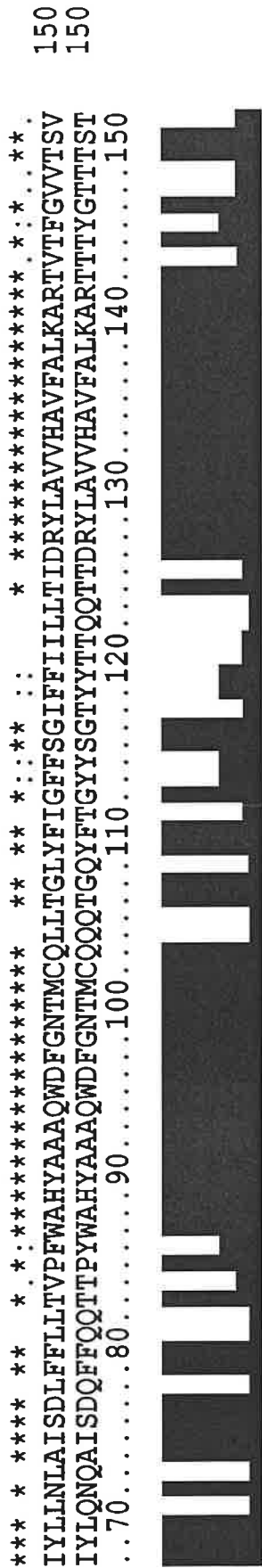


FIG. 8 (continued)

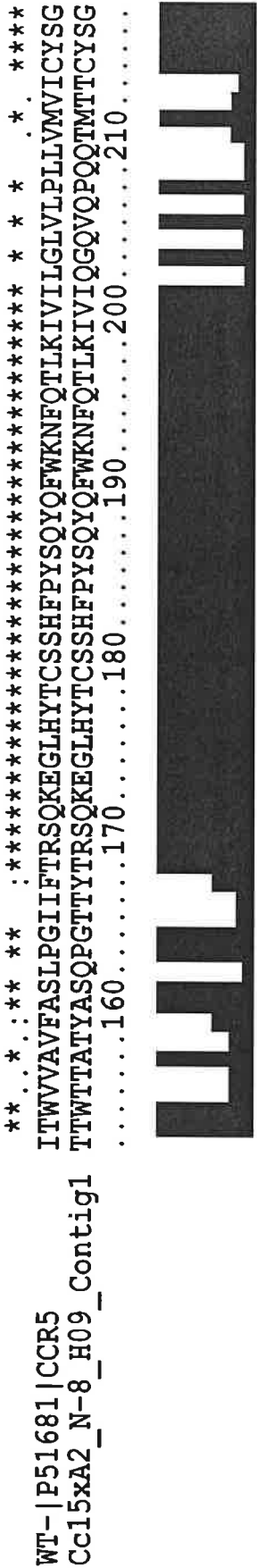


FIG. 8 (continued)

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* **** * * * * : * * * * : * * * * * * * * * * * * * * * * * * * *
ILKTLRCRNEKKRRHRAVRLLIFTIMIVYFLFWAPYNIVLLNTFFQEFFGLNCCSSNRLLDQAMQVTETLGMTHCCINPIIYAFV 300
IQKTLRCRNEKKRRHRAVRQTYTMTTYYQYWAPYNTVQQLNNTFFQEFFGLNCCSSNRLLDQAMQVTETLGMTHCCINPIIYAYV 300
.220.....230.....240.....250.....260.....270.....280.....290.....300

```



FIG. 8 (continued)

WT-|P51681|CCR5  
Cc15xA2\_N-8\_H09\_Contig1

\*\*\*\*\*  
GEKFRNYLLVFFQKHIAKRFCKCCSIFQQEAPERASSVYTRSTGEQEISVGL 352  
GEKFRNYLLVFFQKHIAKRFCKCCSIFQQEAPERASSVYTRSTGEQEISVGL 352  
.....310.....320.....330.....340.....350..



27/31

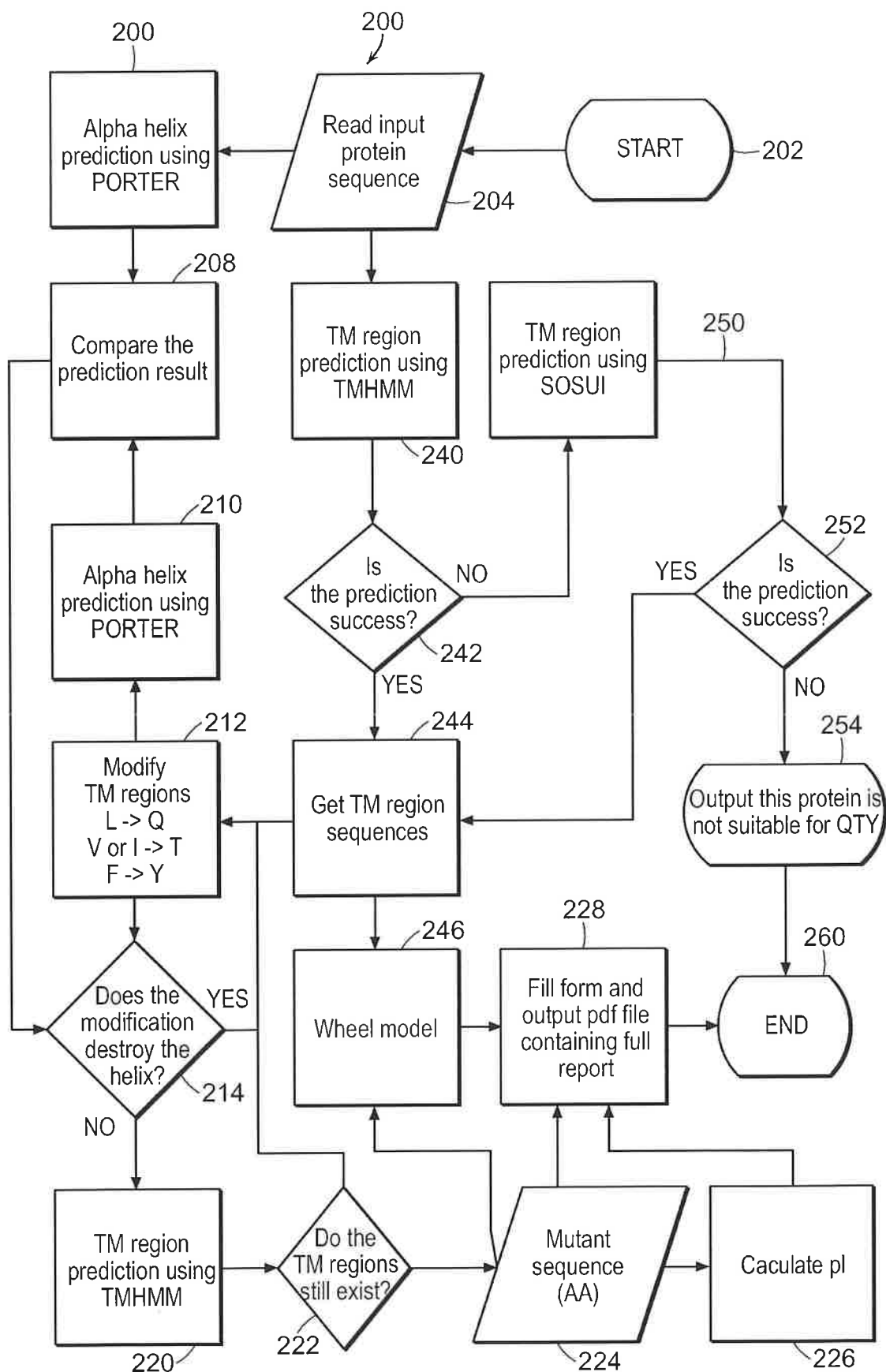


FIG. 9A

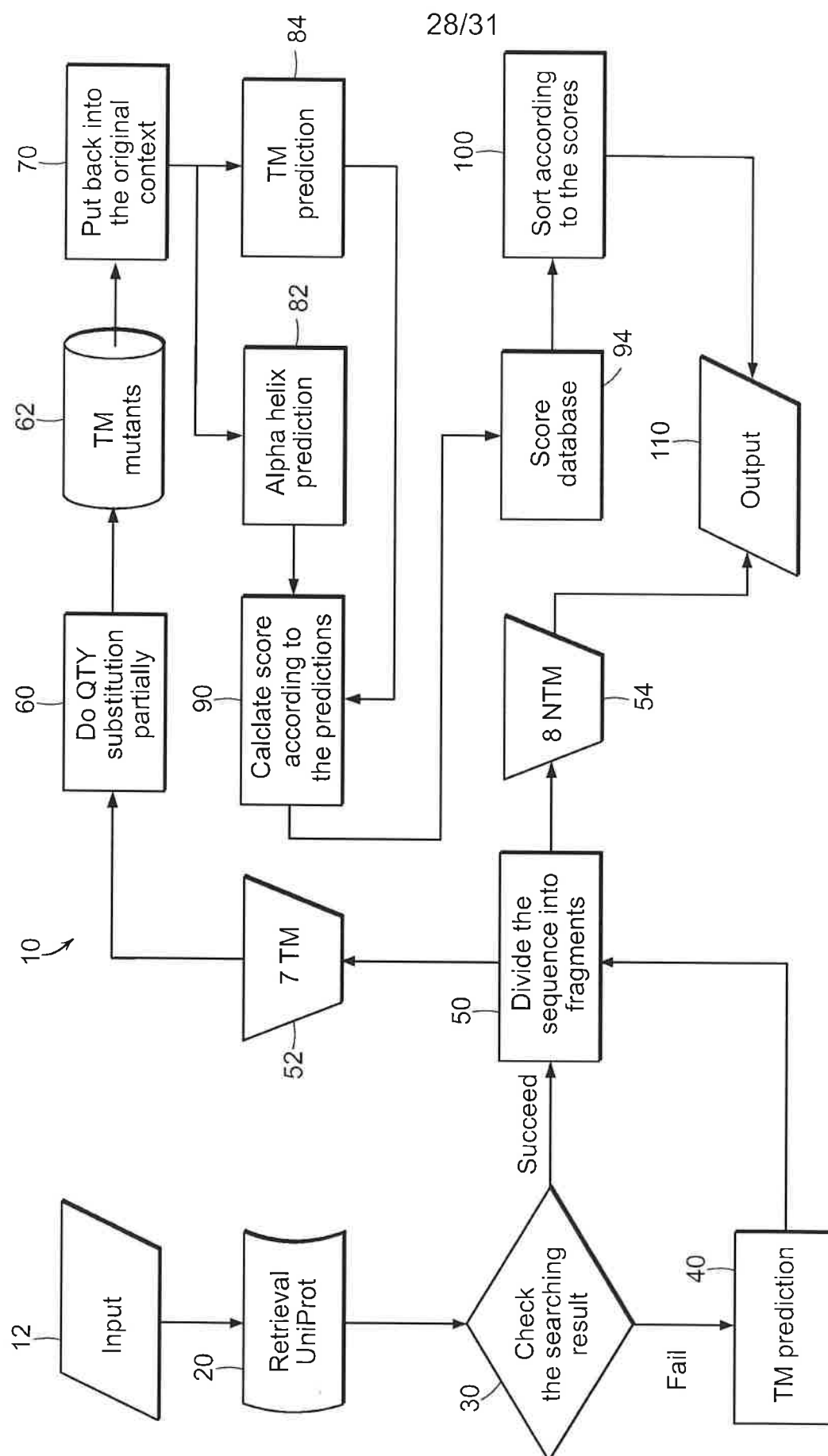


FIG. 9B

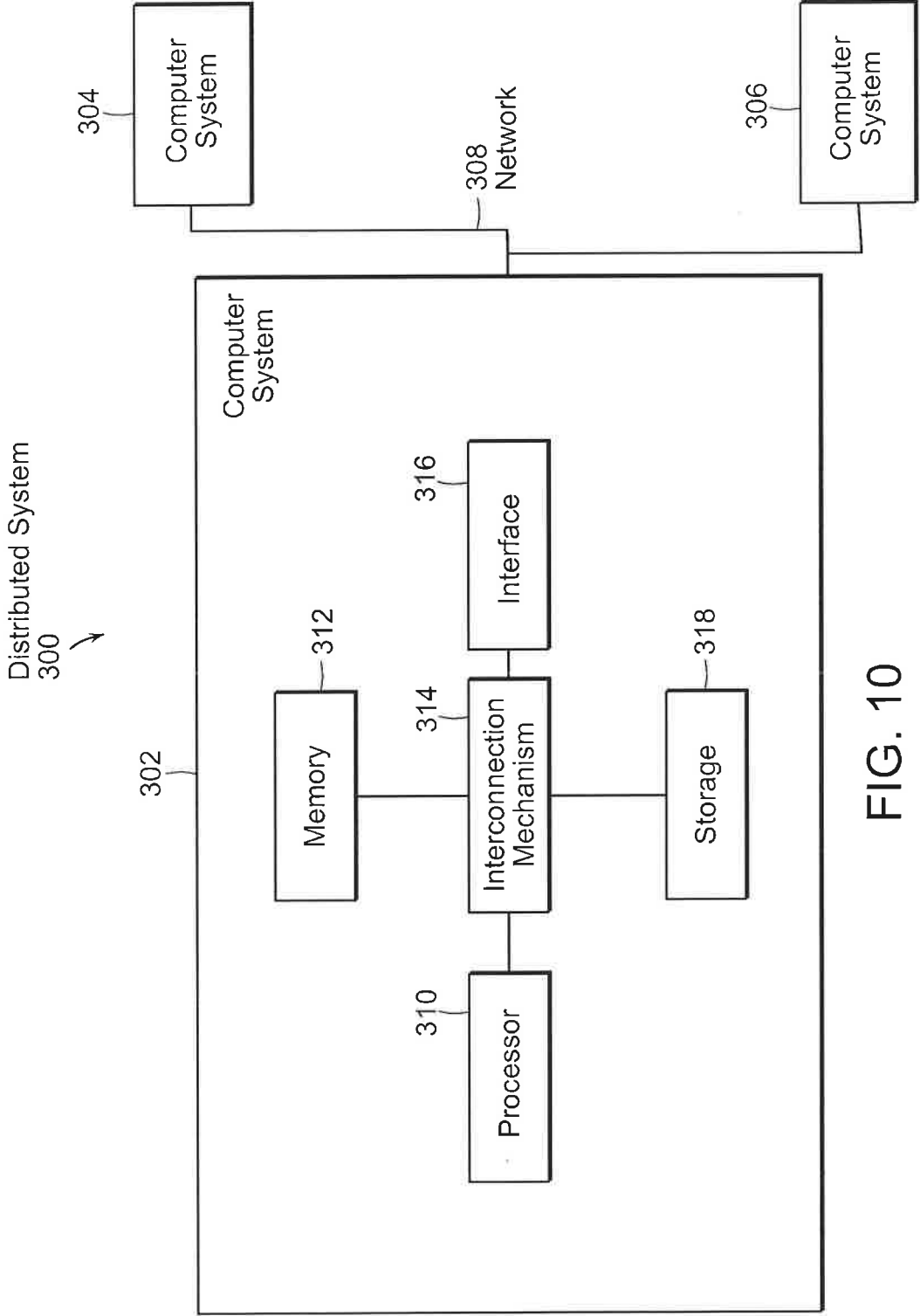


FIG. 10

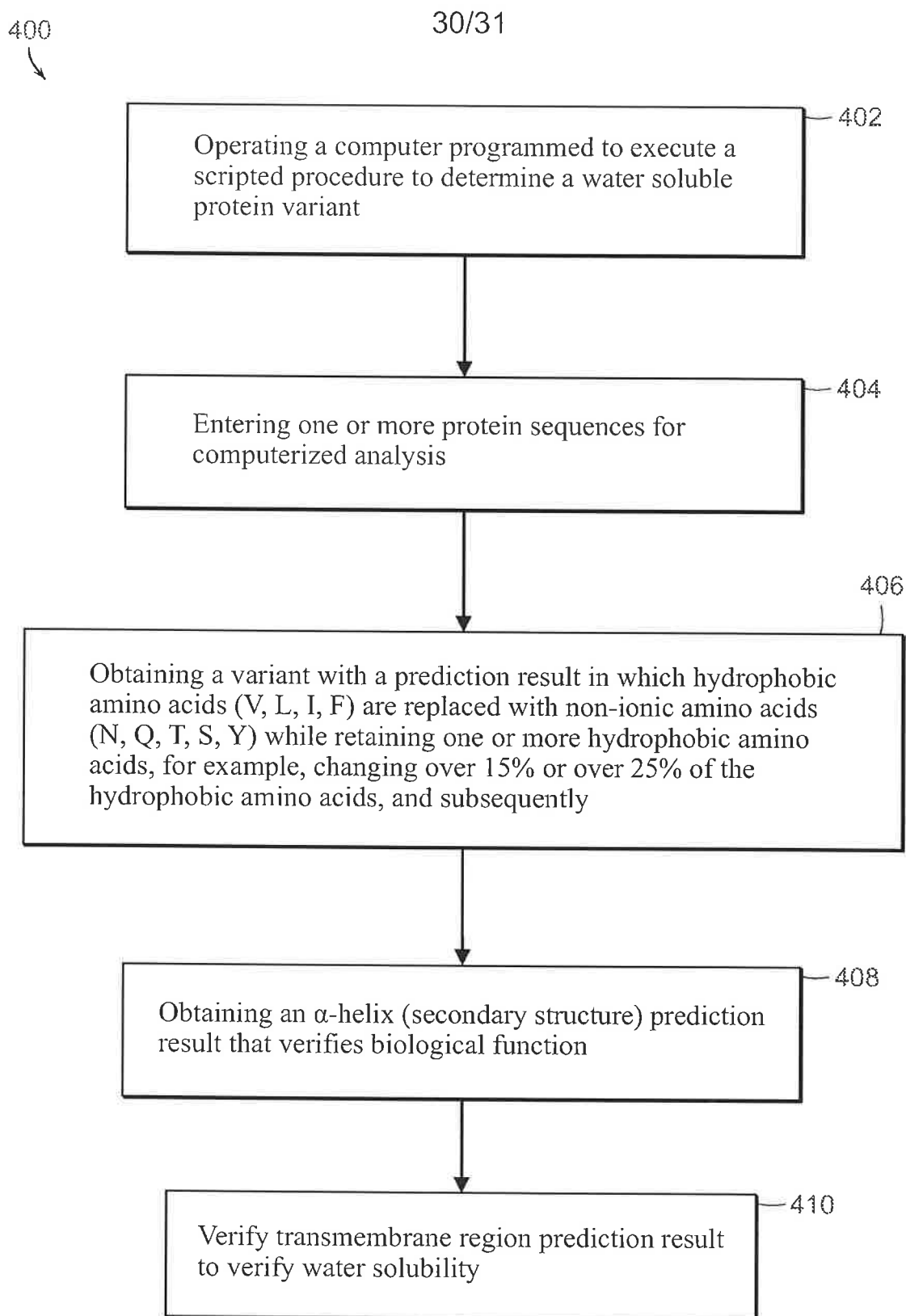


FIG. 11A

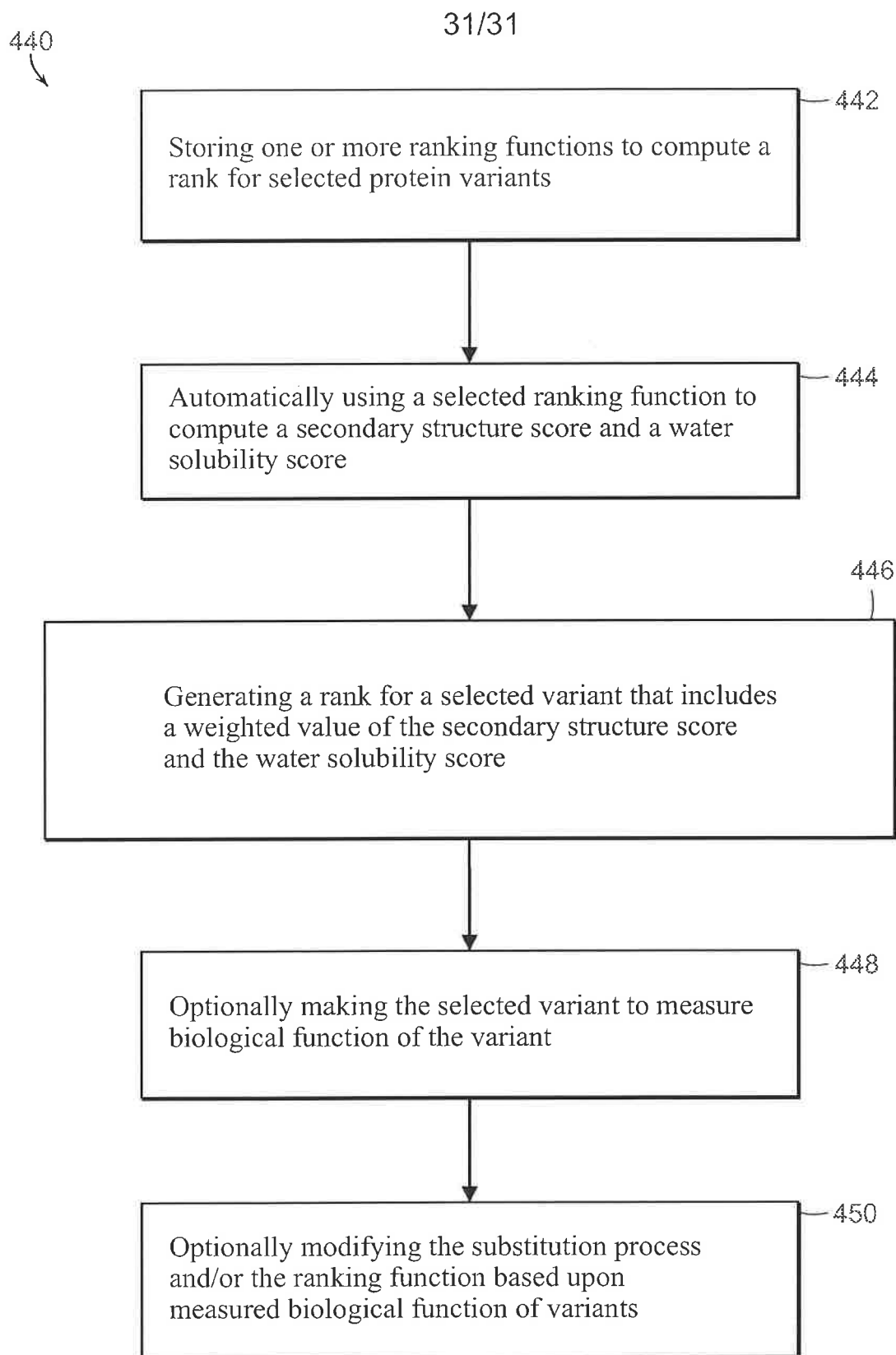


FIG. 11B