REPORT OF QTY/NTY DESIGN

1. Job information:

Job/Protein Name: P47804

User: siqipan2008@outlook.com

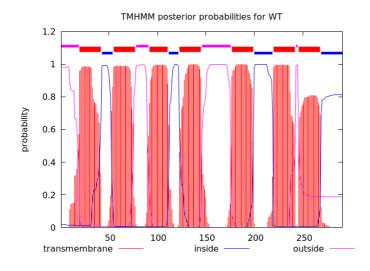
Designing code: QTY

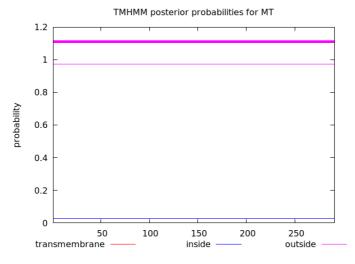
Length of protein sequence: 291 Number of modified TM regions: 7

2. Comparison of general characteristics:

| Type | pI | MW (kDa) | Hydrophobicity | Mutation rate (TM, %) | Mutation rate (%) |
|------|------|----------|----------------|-----------------------|-------------------|
| WT | 8.34 | 31.8742 | 0.4144 | / | / |
| MT | 8.29 | 32.3884 | -0.8765 | 42.86 | 21.65 |

3. Comparison of TM prediction:





4. Comparison of sequences:

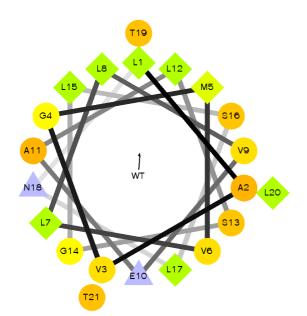
| 1 | | 60 |
|-----|--|-----|
| WT | MAETSALPTGFGELEVLAVGMVLLVEALSGLSLNTLTIFSFCKTPELRTPCHLLVLSLAL | |
| | $\verb MAETSALPTGFGELETQATGMTQQTEAQSGQSQNTQTIFSFCKTPELRTPCHQQTQSQAQ $ | |
| 61 | | 120 |
| WT | ADSGISLNALVAATSSLLRRWPYGSDGCQAHGFQGFVTALASICSSAAIAWGRYHHYCTR | |
| | ADSGTSQNAQTAATSSLLRRWPYGSDGCQAHGYQGYTTAQASTCSSAATAWGRYHHYCTR | |
| 121 | | 180 |
| | SQLAWNSAVSLVLFVWLSSAFWAALPLLGWGHYDYEPLGTCCTLDYSKGDRNFTSFLFTM ***** * * * * | |
| 181 | | 240 |
| | SFFNFAMPLFITITSYSLMEQKLGKSGHLQVNTTLPARTLLLGWGPYAILYLYAVIADVT ** * *** * | |
| | | 300 |
| WT | SISPKLQMVPALIAKMVPTINAINYALGNEMVCRGIWQCLSPQKREKDRTK | 300 |
| MΤ | SISPKLQMTPAQTAKMTPTTNATNYAQGNEMVCRGIWQCLSPQKREKDRTK | |

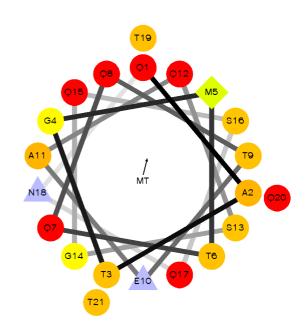
5. Detailed comparison of TM regions:

TM1

AA sequence comparison:

Alpha-helix prediction comparison:

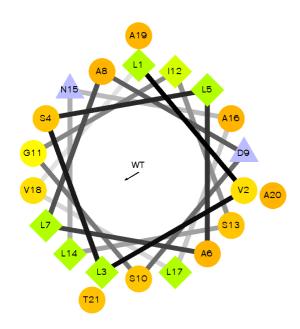


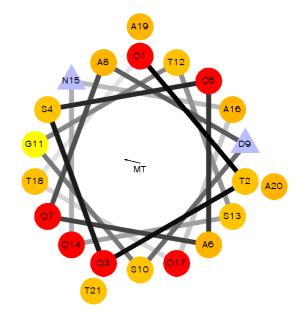


AA sequence comparison:

TM2-wt: LVLSLALADSGISLNALVAAT
***|*|*|||*|*||**||
TM2-mt: QTQSQAQADSGTSQNAQTAAT

Alpha-helix prediction comparison:

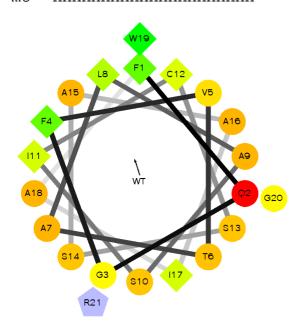


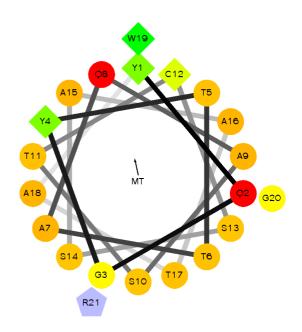


TM3

AA sequence comparison:

Alpha-helix prediction comparison:

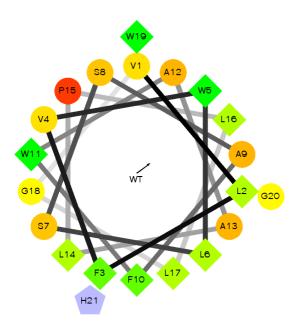


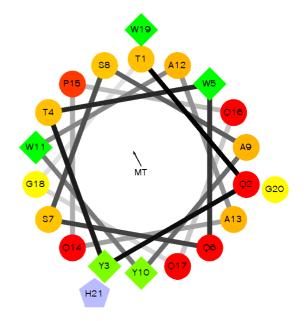


AA sequence comparison:

TM4-wt: VLFVWLSSAFWAALPLLGWGH **** | | | * | | * | * | | | TM4-mt: TQYTWQSSAYWAAQPQQGWGH

Alpha-helix prediction comparison:



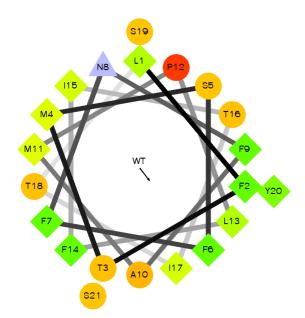


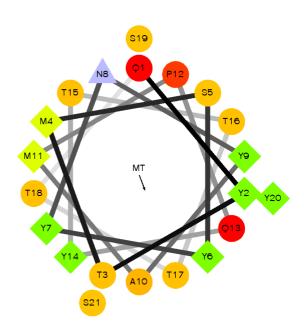
TM5

AA sequence comparison:

TM5-wt: LFTMSFFNFAMPLFITITSYS ** | | | ** | * | | | ** * | * | | | TM5-mt: QYTMSYYNYAMPQYTTTTSYS

Alpha-helix prediction comparison:





TM6

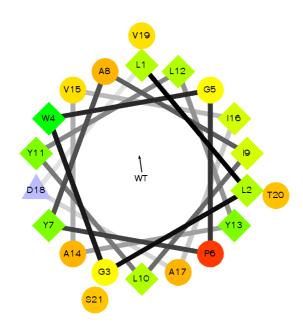
AA sequence comparison:

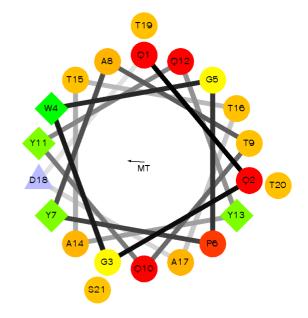
TM6-wt: LLGWGPYAILYLYAVIADVTS

||||||*||**|
TM6-mt: QQGWGPYATQYQYATTADTTS

Alpha-helix prediction comparison:

TM6-wt: HHCCCHHHHHHHHHHHCCCCC
||*||||||||||||
TM6-mt: HHHCCHHHHHHHHHHHCCCCC





TM7

AA sequence comparison:

TM7-wt: VPALIAKMVPTINAINYALGN *|**||*||*||*|| TM7-mt: TPAQTAKMTPTTNATNYAQGN

Alpha-helix prediction comparison:

