REPORT OF QTY/NTY DESIGN

1. Job information:

Job/Protein Name: BOR2U4

User: siqipan2008@outlook.com

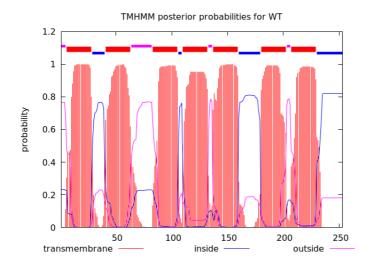
Designing code: QTY

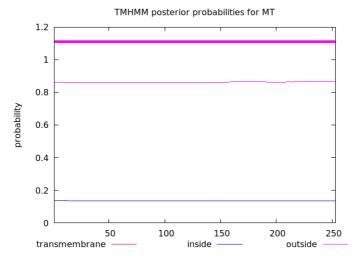
Length of protein sequence: 253 Number of modified TM regions: 7

2. Comparison of general characteristics:

| Type | pI | MW (kDa) | Hydrophobicity | Mutation rate (TM, %) | Mutation rate (%) |
|------|------|----------|----------------|-----------------------|-------------------|
| WT | 5.34 | 26.9618 | 0.9794 | / | / |
| MT | 5.34 | 27.4996 | -0.7786 | 44.19 | 30.04 |

3. Comparison of TM prediction:





4. Comparison of sequences:

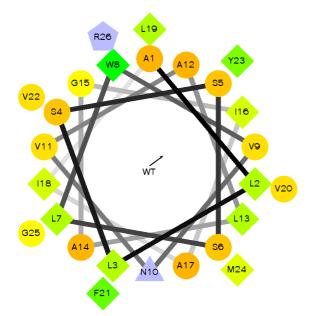
| 1 | | 60 |
|----------|--|-----|
| WT | AVRENALLSSSLWVNVALAGIAILVFVYMGRTIRPGRPRLIWGATLMIPLVSISSYLGLL * * * * * * * | |
| MT | ${\tt AVRENAQQSSSQWTNTAQAGTATQTYTYMGRTIRPGRPRQTWGATQMTPQTSTSSYQGQQ}$ | |
| 61 | | 120 |
| | SGLTVGMIEMPAGHALAGEMVRSQWGRYLTWALSTPMILLALGLLADVDLGSLFTVIAAD | |
| МТ | SGLTVGMIEMPAGHALAGEMVRSQWGRYQTWAQSTPMTQQAQGQQADVDQGSQYTTTAAD | |
| 121 | | 180 |
| WT MT | IGMCVTGLAAAMTTSALLFRWAFYAISCAFFVVVLSALVTDWAASASSAGTAEIFDTLRV * * * *** * ************** | |
| | | 240 |
| WT | LTVVLWLGYPIVWAVGVEGLALVQSVGVTSWAYSVLDVFAKYVFAFILLRWVANNERTVA * *** * ** * | 240 |
| | | 300 |
| | VAGQTLGTMSSDD | 300 |
| *** | | |
| MT | VAGQTLGTMSSDD | |

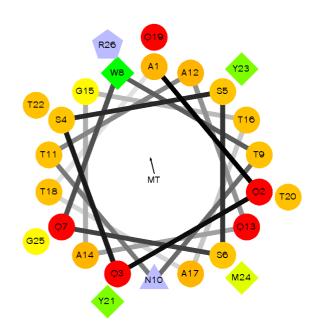
5. Detailed comparison of TM regions:

TM1

AA sequence comparison:

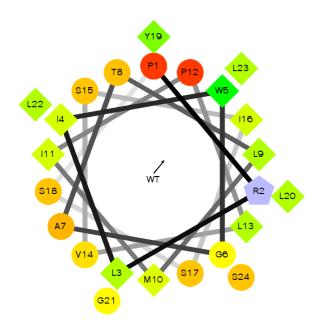
Alpha-helix prediction comparison:

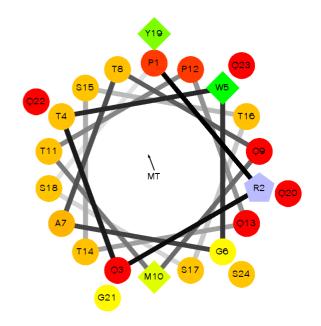




AA sequence comparison:

Alpha-helix prediction comparison:



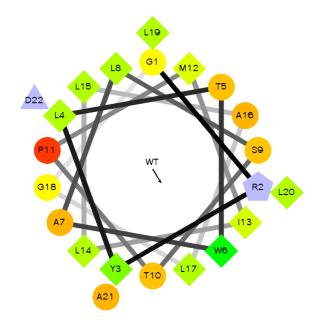


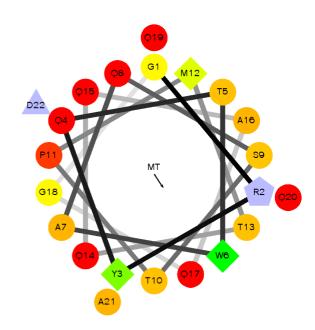
TM3

AA sequence comparison:

TM3-wt: GRYLTWALSTPMILLALGLLAD | | | * | | | * * | * | * | | | | * * * | * * | | | | TM3-mt: GRYQTWAQSTPMTQQAQGQQAD

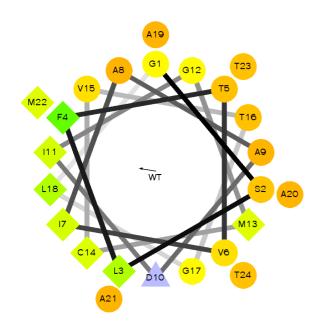
Alpha-helix prediction comparison:

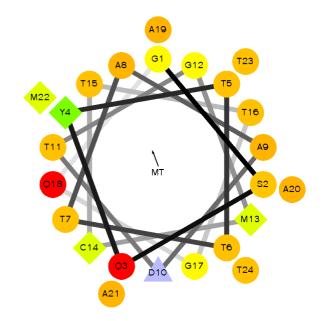




AA sequence comparison:

Alpha-helix prediction comparison:



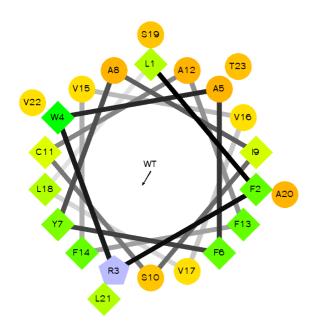


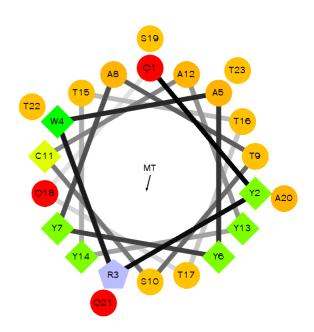
TM5

AA sequence comparison:

TM5-wt: LFRWAFYAISCAFFVVVLSALVT ** | | * | | | * * * * * | | * * | TM5-mt: QYRWAYYATSCAYYTTTQSAQTT

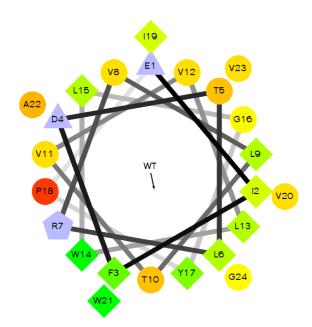
Alpha-helix prediction comparison:

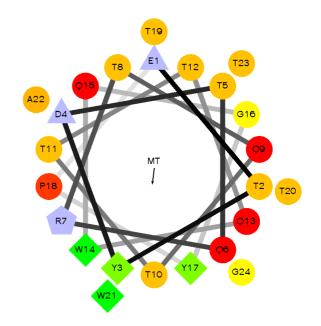




AA sequence comparison:

Alpha-helix prediction comparison:





TM7

AA sequence comparison:

Alpha-helix prediction comparison:

