A)

wt AACTATTCCTGGTCCTCGCTCTC̈TCCCTTTGCTGGGAAACATGCTGGATCTCGCCCAAGGATCATCTGCCC (523 aa)
uob2122 AACTATTTCTGGTCCTCGCTCTCTCCC-------------TGCTGGATCTCGCCCAAGATCATCTGCCC ( 1414,95 aa)
nob2123 AACTATTTCTGGTCCTCGCTCTCTCCCT--------------TGCTGGATCTCGCCCAAGATCATCTGCCC ( $\Delta 13.82$ ख)
B)
uob2122
uob2123

179 bp
A)


| Genotype phenotype correlation of Visual Background Adaption (VBA) phenotype |  |  |  |
| :--- | :--- | :--- | :--- |
| Line 2 (uob2122) | Genotype |  |  |
| Phenotype | Wild type | Heterozygous <br> mutant | Homozygous <br> mutant |
| VBA+ pale $(\mathrm{n}=29)$ | 4 | $\mathbf{2 5}$ | 0 |
| VBA- dark $(\mathrm{n}=48)$ | 0 | $\mathbf{5}$ | $\mathbf{4 3}$ |
| Line 3 (uob2123) | Genotype |  |  |
| Phenotype | Wild type | Heterozygous <br> mutant | Homozygous <br> mutant |
| VBA+ pale $(\mathrm{n}=9)$ | $\mathbf{4}$ | $\mathbf{5}$ | 0 |
| VBA- dark $(\mathrm{n}=10)$ | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{1 0}$ |



