```
WT      GCTGTTCCAATAGTTATGATGAATGCGACGCTGCTGATCGTACAGTTCCTCATTTCGTTCGTTGCCAATATC
        AlaValProIleValMetMetAsnAlaThrLeuLeuIleValGlnPheLeuIleSerPheValAlaAsnIle

A2T01   GCTGTTCCAATAGTTATGATGAATGCGACG----------------------TAAGCTTTGCCAATATC
        AlaValProIleValMetMetAsnAlaThr                      Stp
A2T03   GCTGTTCCAATAGTTATGATGAATGCGA---------TCGTACAGTTCCTCATTTCGTTCGTTGCCAATATC
        AlaValProIleValMetMetAsnAlaIle         ValGlnPheLeuIleSerPheValAlaAsnIle
A2T06   GCTGTTCCAATAGTTATGATGAATGC-----TGCTGATCGTACAGTTCCTCATTTCGTTCGTTGCCAATATC
        AlaValProIleValMetMetAsnAla      AspAspArgThrValProHisPheValArgAlaGlnTyr
A2T08   GCTGTTCCAATAGTTATGATGAATGCG---CTGCTGATCGTACAGTTCCTCATTTCGTTCGTTGCCAATATC
        AlaValProIleValMetMetAsnAla    LeuLeuIleValGlnPheLeuIleSerPheValAlaAsnIle
A2T11   GCTGTTCCAATAGTTATGATGAATGCG------CTGATCGTACAGTTCCTCATTTCGTTCGTTGCCAATATC
        AlaValProIleValMetMetAsnAla       LeuIleValGlnPheLeuIleSerPheValAlaAsnIle
A2T14   GCTGTTCCAATAGTTATGATGAA----ACGCTGCTGATCGTACAGTTCCTCATTTCGTTCGTTGCCAATATC
        AlaValProIleValMetMetLys    ArgCysStp
```

Figure. S1 Mutations in BmABCA2 in mutant strains produced by genome-editing method using TALENs. The predicted cDNA sequences and their deduced protein sequences from the wild-type (WT) and TALEN mutant strains, showing premature termination of the ABCA2 protein in the mutant strains.