

File S1. Detection of knockout sites at mRNA and protein level in transgenic silkworm

mRNA:

Nistari AAGCCACGGGTGCCGAAGGACCCCCGCATGCTCGGCTCCAACATATTTCACTGAACATAGCGAGGCGCTGCTGCAGAGCCGA 153  
BmAbl<sup>-</sup> AAGCCACGGGTGCCGAAGGACCCCCGCATGCTCGGCTCCAACATATTTCACTGAACATAGCG----- 133

Nistari CCGCTGCCGCACATCCCAGACCTGCCCGACGAGGCCGCCGCGCCACCCGCTCCGCTGCCGCTCGACTCCGCTAACAGATG 233  
BmAbl<sup>-</sup> ----- 133

Nistari GACCTCGAAGGAGAATCTTTTGGCCCATCACGAAGAGGACGATCCCCAGCTGTTCTGTAGCCCTCTACGATTTCCAGGCGGGA 315  
BmAbl<sup>-</sup> ----- 133

Nistari GGGGAGAACCAGCTCACGCTCAAGAAAGGCGAGCAGGTGCGCATCATGAGCTACAACAAGAGCGGCGAGTGGTGCGAAGC 395  
BmAbl<sup>-</sup> -----AGGCGAGCAGGTGCGCATCATGAGCTACAACAAGAGCGGCGAGTGGTGCGAAGC 187

Nistari CCACACGCTGACTGGGGCCGTGGGCTGGGTGCCAGCAACTACGTCACTCCAGTCAACAGTCTCGAGAAGCATTATGGTA 476  
BmAbl<sup>-</sup> CCACACGCTGACTGGGGCCGTGGGCTGGGTGCCAGCAACTACGTCACTCCAGTCAACAGTCTCGAGAAGCATTATGGTA 268

Nistari CCATGGGCCGATTTCCTCGCAACGCGGCGGAGTACCTCCTCTCGTCTGGGATCAATGGCAGCTTCCTGGTCCGCGAATCGGA 557  
BmAbl<sup>-</sup> CCATGGGCCGATTTCCTCGCAACGCGGCGGAGTACCTCCTCTCGTCTGGGATCAATGGCAGCTTCCTGGTCCGCGAATCGGA 349

Nistari ATCGAGTCTGGGCAACGCAGCATATCCCTCCGCTACGAAGGGAGAGTTTACCACTACCGCATCAACGAAGACGCCGATGG 638  
BmAbl<sup>-</sup> ATCGAGTCTGGGCAACGCAGCATATCCCTCCGCTACGAAGGGAGAGTTTACCACTACCGCATCAACGAAGACGCCGATGG 430

Nistari GAAGGTT (573bp) 645  
BmAbl<sup>-</sup> GAAGGTT (-208bp) 437

Protein:

Nistari KPRVPKDPRMLGSNIFTEHSEALLQSRPLPHIDLPDEAAAPPAPLPLDSANRWTSKENLLAHHEEDDPQLFVALYDFQAGG  
BmAbl<sup>-</sup> KPRVPKDPRMLGSNIFTEHSEASRCAS\*-----

Nistari ENQLT LKKGEQVRIMSYNKSGEWCEAHTLTGAVGWVPSNYVTPVNSLEKHSWYHGPISRNAEYLLSSGINGSFLVRESES  
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Nistari SPGQRSISLRYEGRVYHYRINEDADGKVKPRV (191aa)  
BmAbl<sup>-</sup> ----- (early termination)

BmAbl1 qRT-PCR:

