A

Parameters for synthesis
- Codon optimization: YES
  - Host system: *E. coli*
  - RE to avoid: internal *Nde*I-*Xho*I
  - RE to keep: flanking *Nde*I-*Xho*I
- Vector: pET28a(+)
- Cloning sites: *Nde*I -*Xho*I

B

>Mp4145_protein_3305
5'-seq: CATATG
MGSSHHHHHHSSGLVPRGSHMSPVARSFHSEIVKPAPGTTIAPGQAFDFQYHGVADYSISGYNY
SVWLFTELPSGFPSGEDVGAGEFLGRFDYPNYPGVPYATHPAPAQLVMPDFSRYYSGFGGGDYA
SDRKVYLAVLEEYKSGKSFGFRLQLTYNELIYNSTITN
3'-seq: CTCGAG
Length: 450 bp

Supplementary Figure 3: Optimized BASIDIN protein sequence for expression in *Escherichia coli.* **(A)** Parameters for synthesis of the optimized sequence of BASIDIN; **(B)**: Optimized BASIDIN sequence for expression in *E. coli*.