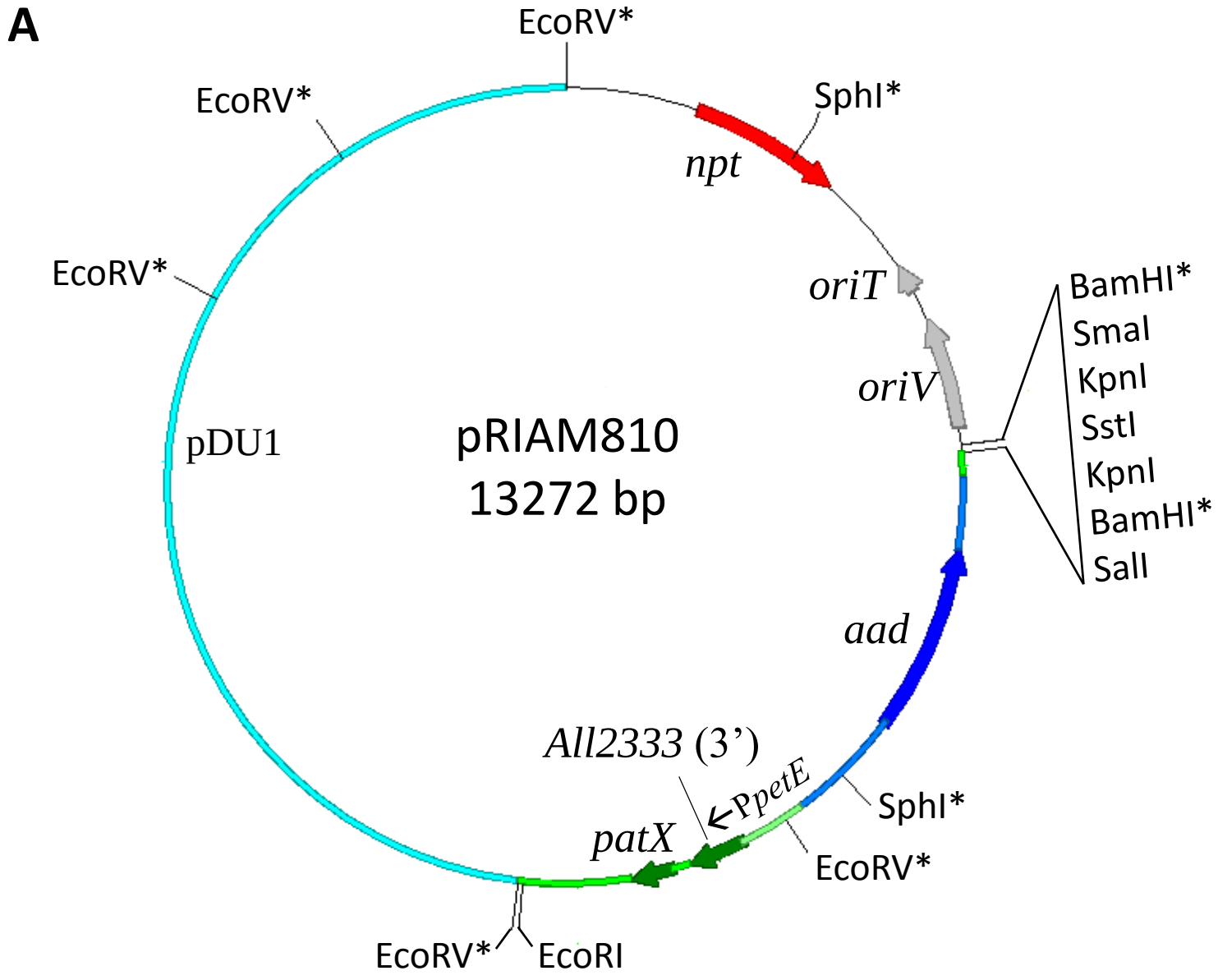
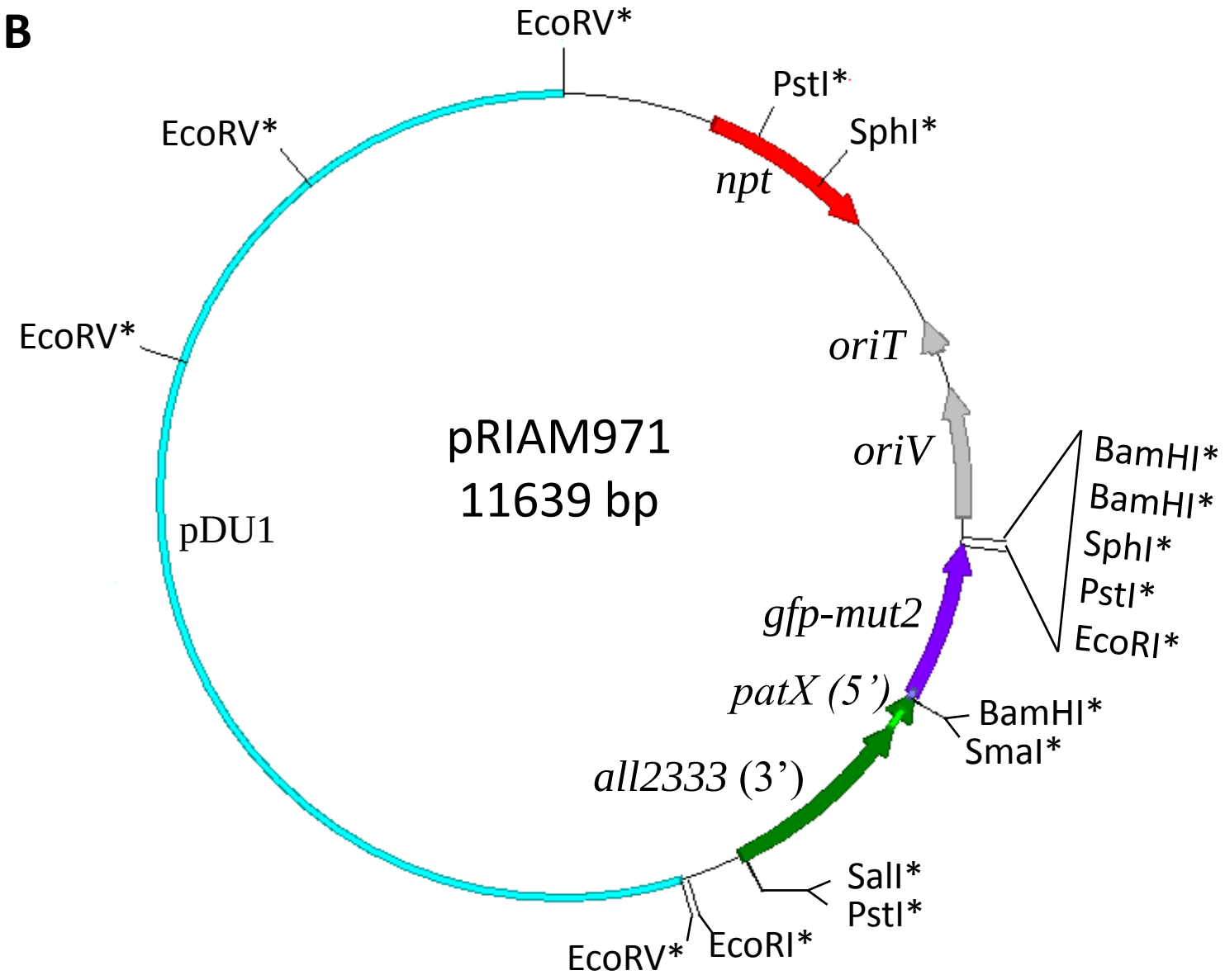
Supporting Figure S10: Plasmids used in this study



Supporting Figure S10: Plasmids used in this study



Supporting Figure S10: Plasmids used in this study

Supporting Figure S11. Plasmids used in this study. Constructions are described in the Methods section. Asterisks indicate that the restriction site is not unique in the plasmid. Reconstructed sequences are available on request.

(**A**) Composition of pRIAM810 (used to overexpress PatX)

- pAM504 from EcoRV to SalI [3131 bp]
  - There is evidently no deposited sequence for pAM504, however from the description of the plasmid (Yoon and Golden, 1998), one can construct the sequence of pAM504 from the available sequence for pRL488 (Elhai, 1983), identical to pRL444 used by Yoon and Golden except that pRL488's unique SmaI site is absent in pRL444.
  - The EcoRV to SalI fragment is equivalent to EcoRV (1) to BamHI (3091) supplemented with the indicated BamHI-SalI polylinker consisting of BamHI to SstI from pUC18 and SstI to SalI from L.EHE2 (Elhai and Wolk, 1988).
  - *npt*: Encoding neomycin phosphotransferase, conferring resistance to kanamycin and neomycin
  - *oriT*: Origin of transfer. Required for conjugal transfer.
  - *oriV*: Origin of replication. Required for replication in *E. coli*
- pUC18 polylinker from SalI to BamHI (destroyed) [12 bp]
- *Anabaena* PCC 7120 chromosome from 2813407 (Sau3AI) to 2813287 (BglII) [121 bp]
  - Region upstream of *all2333*.
- *Anabaena* PCC 7120 chromosome from 278173 (preceded by BamHI) to 278170 (ScaI) [7 bp]
  - Region upstream of *petE*
- Omega fragment from pHP45-omega from 33 to 2112, flanked by GGGGATC x2 [2032 bp]
  - Sequence from Prentki & Krisch (1984)
  - *aad*: encoding aminoglycoside-3-adenyltransferase and conferring resistance to streptomycin and spectinomycin
- *Anabaena* PCC 7120 chromosome from 278169 (ScaI) to 277814 followed by EcoRI [359 bp]
  - Region upstream of *petE*, including copper-regulated promoter
- *Anabaena* PCC 7120 chromosome from 2811575 (MfeI) to 2810366 (EcoRI) [1210 bp]
  - *all2333* (313 bp 3' end of gene)
  - *asl2332* (*patX*)
- pAM504 from EcoRI to EcoRV (origin) [6400 bp]
  - pDU1 confers ability to replicate independently in *Anabaena* PCC 7120

Supporting Figure S10: Plasmids used in this study

(**B**) Composition of pRIAM971 (used to visualize PatX expression)

- pAM1956, from EcoRV (3107) backwards through 1 to SmaI (9824) [3887 bp]
  - Coordinates from AddGene version of pAM1956 (Yoon and Golden, 1998). Another version (deposited by Videau and Callahan) has several differences, including a slightly different polylinker.
  - *npt*: Encoding neomycin phosphotransferase, conferring resistance to kanamycin and neomycin
  - *oriT*: Origin of transfer. Required for conjugal transfer.
  - *oriV*: Origin of replication. Required for replication in E. coli
  - *gfp-mut2*: promoterless gene encoding version of GFP
- *Anabaena* PCC 7120 chromosome from 2811107 (SmaI) to 2812192 (SalI) [1067 bp]
  - The fragment was produced by PCR using primers modified to create the SmaI and SalI sites.
  - *patX* (5' end). There are two in frame stop codons between the truncated *patX* and *gfp-mut2*
  - *all2333* (3' end)
- pAM1956 from SalI (9791) backwards to EcoRV (3106) [6685 bp]
  - pDU1 confers ability to replicate independently in *Anabaena* PCC 7120

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