pHR11

Cat. No. *ALRK-03284*

Lot. No. (See product label)

Description

This plasmid can transform the Chlamydomonas nuclear genome in strains that are deficient or disrupted at the ARG7 locus, and therefore are arginine auxotrophic. This plasmid exhibits much greater transformation efficiency than plasmids with the genomic ARG7 fragment. USER (uracil-specific excision reagent) fusion cloning was used to construct this vector. The ARG7 promoter and 5' UTR, the ARG7 coding sequence, and the ARG7 3' UTR were amplified in two pieces from a cDNA preparation from the Chlamydomonas reinhardtii strain MUT-1010. These fragments were then fused into Hcr1 with the USER enzyme. Ampicillin resistant in E. coli; restoration of arginine prototrophy in certain Chlamydomonas strains (tested in MUT-1819, MUT-1820, MUT-1826). Note: This promoter is not determined to be the minimal sequence for promoter activity. This cut-off was chosen because this is how much was included in a previous genomic fragment that was shown to not need an additional promoter. It is possible that this vector could be made even smaller by truncating some sequence at the 5' end.

Insert

ARG7 promoter/5' UTR::ARG7 coding sequence::ARG7 3' UTR. Total insert size is 3,479 bp.

Bacterial Host Strain

DH5 alpha

Selectable Marker

Amp-r

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