

pHR16

Cat. No. ALRK-03286

Lot. No. (See product label)

Description

This plasmid is useful for transforming the *Chlamydomonas* nuclear genome with the reporter ARS2, the periplasmic arylsulfatase, for constitutive expression. The paromomycin resistance eliminates the need to co-transform with another plasmid for selection. The plasmid exhibits greater transformation efficiency and stronger arylsulfatase signal than plasmids with the genomic ARS2 fragment. It is similar to pHR15 but exhibits higher signal strength in most clones. The ARS2 coding sequence and the ARS2 3' UTR were amplified from a cDNA preparation from a sulfur-starved *Chlamydomonas reinhardtii* strain MUT-1010 culture. The ARG7 promoter and 5' UTR were amplified from another cDNA from non-stressed *Chlamydomonas reinhardtii* strain MUT-1010 culture. The selection cassette (PSAD:Paro:PSAD) was inserted upstream of the ARS2 cassette, using blunt restriction/ligation. Selection: Ampicillin resistant in *E. coli*; paromomycin resistant in *Chlamydomonas*.

Insert

PSAD promoter/5' UTR::paromomycin resistance (aphVIII)::PSAD 3' UTR immediately upstream of ARG7 promoter/5' UTR::ARS2 coding sequence::ARS2 3' UTR. Total insert size is 6,028 bp.

Bacterial Host Strain

DH5 alpha

Selectable Marker

Amp-r

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