

# pHR15

Cat. No. ALRK-03285

Lot. No. (See product label)

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## 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 pHR16 but produces slightly lower levels of arylsulfatase expression. 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 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 HSP70/RbcS2 promoter/5' UTR::ARS2 coding sequence::ARS2 3' UTR. Total insert size is 5,276 bp.

## Bacterial Host Strain

DH5 alpha

## Selectable Marker

Amp-r

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**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**