

# MUT-4729 rbcS1-R59E mt-

Cat. No. ALS-03866

Lot. No. (See product label)

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## Subcategory

Mutants

## Description

Directed mutagenesis and nuclear-gene transformation of rbcS $\Delta$ -T60-3 mt- were used to create an R59E substitution (CGC-GAG) in the betaA-betaB loop of the Rubisco small subunit, which causes a decrease in Rubisco holoenzyme stability. This mutant can grow on minimal medium at 25 °C, but dies on minimal medium at 35 °C. The strain has been maintained with acetate medium in darkness to prevent selection for secondary mutations that may improve Rubisco function or stability.

## Species

Chlamydomonas

## Locus

RBCS1

## Chromosome

2

## Phenotype

Requires acetate at 35 °C; temperature-conditional

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**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**