

MUT-4750 rbcS1-Y32E mt-

Cat. No. ALS-03886

Lot. No. (See product label)

Subcategory

Mutants

Description

Using established methods of directed mutagenesis and nuclear-gene transformation of rbcS Δ -T60-3 mt- (MUT-4415), a Y32E substitution in the Rubisco small subunit was created, which causes a decrease in Rubisco CO₂/O₂ specificity and 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

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY