

MUT-4883 rbcL-R32K/V145C/P210S/ A222S/I225L/C247S/I309M mt+

Cat. No. ALS-04018

Lot. No. (See product label)

Subcategory

Mutants

Description

Using standard methods of directed mutagenesis and chloroplast transformation of rbcL Δ -MX3312 mt+ (MUT-4696), seven substitutions were created together in the Rubisco large subunit. This mutant was created to investigate phylogenetic differences in the Rubisco large subunit that may be responsible for pyrenoid formation in algae. The seven combined substitutions do not block pyrenoid formation, but the strain grows slower than wild type under photosynthetic growth conditions. See also rbcL-R32K/A222S/C247S. This strain has been maintained with acetate medium in darkness to prevent selection for secondary mutations that may improve Rubisco function.

Species

Chlamydomonas

Locus

rbcL

Chromosome

Chloroplast

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