

MUT-4802 rbcL-V331A/G344S mt+ (R61-2J revertant of 45-3B) (original isolate)

Cat. No. ALS-03938

Lot. No. (See product label)

Subcategory

Mutants

Description

R61-2J was recovered as a photosynthesis-competent revertant of rbcL-V331A mt+ (45-3B). It results from an intragenic-suppressor mutation that causes a G344S substitution (GGT-AGT) in the Rubisco large subunit, and the double-mutant enzyme has decreased Rubisco CO₂/O₂ specificity. The V331A/G344S mutant-enzyme x-ray crystal structure has been solved. The 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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