

MUT-5714 ku80 [line #3]

Cat. No. ALS-04704

Lot. No. (See product label)

Subcategory

Mutants

Description

Knock-out of ku80 (Cre10.g423800) in MUT-1883, resulting in deficiency of non-homologous end-joining (NHEJ) DNA repair. One of three ku80 lines deposited (MUT-5712, MUT-5713, MUT-5714). One ku70 line is also deposited. Knock-out generated using CRISPR/Cas12a and the 1.8 kb aphVIII antibiotic selection marker to disrupt the gene of interest, resulting in paromomycin resistance (paroR). NHEJ deficiency was confirmed by hypersensitivity to the DNA-damaging agent zeocin, and the knock-out locus was sequence-verified. No off-target analysis was performed; may contain off-target edits and aphVIII integrations. Up to 10% DMSO may be added to the PCR to help amplify long GC-rich amplicons, in which case lower annealing temperatures by 3-5 °C.

Deposited as part of 21 lines containing eight different DNA repair mutant genotypes (MUT-5701 to MUT-5721).

Note: since KU70 and KU80 are part of the dimeric KU70/80 complex, we have used ku70 and ku80 mutants collectively as ku70/80 mutants to investigate NHEJ-deficiency.

Species

Chlamydomonas

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