A1148

Fungal Genetics Stock Center
Cell Biology and Biophysics
School of Biological Sciences
5007 Rockhill Road
University of Missouri, Kansas City
Kansas City, MO 64110

PLEASE PROVIDE COMPLETE INFORMATION

Reprints or other data relating to this deposit will aid the Stock Center and recipients of the strain.

Accession number

SPECIES ***Aspergillus nidulans*** MATING TYPE **N/A** **N/A**

GENOTYPE **pyrG89; nkuB::*A. fumigatus* riboB; pyroA4, nkuA::argB; riboB2**

DESIGNATION OF MUTANT ALLELE(S) _____

LINKAGE GROUP(S)_____ STRAIN DESIGNATION IF WILD-TYPE **N/A**

YOUR STOCK NUMBER FOR THIS CULTURE **TN12** (L01414)
include stock no. from other collections

ORIGIN OF STOCK **The nkuA gene was deleted in KJ12 (wA3; argB2; pyroA4) by replacing it with argB. This was crossed to A770 (pabaB22; pyrG89; riboB2). TN02A7 was a segregant of this cross. NkuB was deleted in TN02A7 by replacing it with the *Aspergillus fumigatus* riboB gene.**

for example - obtained from, genetic background, from cross with; or if collected from nature, collection point, substrate and collector.

PUBLISHED REFERENCES **Genetics (published ahead of print) available at http://www.genetics.org/aheadofprint.shtml**

RECOMMENDED CATALOG LISTING **Section C (*Aspergillus*)**

IF UNPUBLISHED, please indicate strain of origin, mutagen, worker, genetic background, important characteristics **N/A**

COMMENTS (special growth requirements, aberrations, heterokaryon compatibility, special uses of strain, etc.)
NkuA (the *A. nidulans* homolog of the human Ku70 gene) and nkuB (the *A. nidulans* homolog of the human Ku80 gene) form a heterodimer important for non-homologous end joining of DNA. Deletion of nkuA greatly reduces the frequency of insertion of transforming DNA by non-homologous integration and, thus, greatly facilitates gene targeting by homologous recombination. Deletion of nkuB (by replacement with the *A. fumigatus* riboB gene) in an nkuA deletion background does not cause any improvement in gene targeting relative to an nkuA deletion. NkuA/nkuB double deletion strains show no obvious difference in growth or