

Perkins. D.D.

ro-9 : ropy-9 (R2526) is apparently
an allele of da : dapple (R2375)
in Neurospora.

Morphological mutant R2526 was mapped in linkage group II and named ro-9 by Garnjobst and Tatum (1967, Genetics 57:579-604). I have confirmed linkage in IIL near thr-3 using stocks derived from FGSC No. 1349, deposited by Tatum.

In our hands the morphology of R2526 and its mutant progeny does not conform to the description of ropy, or to mutants at other loci defined as ropy by Garnjobst and Tatum and by

others. Hyphae are seen not to be curled when viewed microscopically. Hyphal aggregates do not grow in ropy fashion up the culture tube wall.

We have compared R2526 with other morphological mutants known to be linked in the same region. R2526 is clearly unlike tng: tangerine (P4474) in morphology, but it is indistinguishable from da: dapple (R2375). Both ro-9 and da originated in the Tatum laboratory.

Intercrosses aren't feasible because of female sterility. Heterokaryon tests would require heterokaryon-compatible strains with forcing markers. I have been content to compare morphologies and behavior in crosses. Two crosses were analyzed in parallel: da x thr-2 and ro-9 x thr-2. Threonine-independent progeny were selected and compared. Morphologies of mutant progeny were identical in the two crosses at all stages of development. Recombination with thr-2 was also comparable (1/34 vs. 0/23).

Because R2526 morphology is clearly not ropy but dapple, and because the linkage is similar, I suspect that Garnjobst and Tatum misdiagnosed the morphology. ro-9 is certainly a misnomer. It seems highly likely that R2526 is a recurrence of da (described and mapped by Perkins et al. 1962, Can. J. Genet. Cytol. 4:187-205). If this diagnosis is correct ro-9 does not exist as a separate locus, but should become an inactive synonym of da. - - - Dept. of Biological Sciences, Stanford University, Stanford CA, 94305.