

A method for scoring [mi-1] and [mi-1]f in growth tubes

R. W. Barratt

W. N. Ogata

Follow this and additional works at: <https://newprairiepress.org/fgr>



This work is licensed under a [Creative Commons Attribution-Share Alike 4.0 License](https://creativecommons.org/licenses/by-sa/4.0/).

Recommended Citation

Barratt, R. W., and W.N. Ogata (1967) "A method for scoring [mi-1] and [mi-1]f in growth tubes," *Fungal Genetics Reports*: Vol. 12, Article 14. <https://doi.org/10.4148/1941-4765.1959>

This Technical Note is brought to you for free and open access by New Prairie Press. It has been accepted for inclusion in *Fungal Genetics Reports* by an authorized administrator of New Prairie Press. For more information, please contact cads@k-state.edu.

A method for scoring [mi-1] and [mi-1]f in growth tubes

Abstract

Scoring [mi-1] and [mi-1]f in growth tubes

Barratt, R. W. and W. N. Ogata. A method for scoring $[mi-1]$ and $[mi-1]f$ in growth tubes.

[2: 9). Despite the accumulation of these modifiers in $[mi-1]$, also called poky, this strain can be distinguished from the standard wild type strains by its growth in race tubes.

As shown in Figure 1, significantly different rates are obtained when turbid, filtered conidial suspensions of $[mi-1]$ (both muting types), and $[mi-1]f$, which contains the nuclear gene modifier F, are used as inoculum and growth is compared with that of wild type STA4. Under these conditions, both $[mi-1]$ and $[mi-1]f$ strains exhibited on extended lag phase when contrasted with the wild type. Further, growth rates calculated between 30 and 40 hours after inoculation were as follows: wild type 5.4 mm/hr, $[mi-1]f$ 3.6-4.4 mm/hr, and $[mi-1]$ at 1.8 to 2.3 mm/hr. Thus, despite the fact that the $[mi-1]$ strains in FGSC have been shown to contain nuclear modifiers (Grindle and Woodward 1966 Neurospora Newsl. 12: 9), this scoring method enables distinction of $[mi-1]$ from $[mi-1]f$ and from the wild type. Improved strains of the mi series freed from these nuclear modifiers are being solicited by the FGSC for deposition and should be available shortly. - - - Fungal Genetics Stock Center, Department of Biological Sciences, Dartmouth College, Hanover, New Hampshire 03755.

During the course of routine laboratory maintenance over a prolonged period, strains exhibiting extranuclear inheritance accumulate nuclear modifiers affecting growth rate and cytochrome a + a₃ spectra (Barratt 1966 Neurospora Newsl. 12: 11; Grindle and Woodward 1966 Neurospora Newsl.

Figure 1. Growth on race tubes on Difco Neurospora minimal agar medium at 32° c.

(I)	wild type	STA4	(FGSC 262)
(II)	$[mi-1]f$	A	(FGSC 385)
(III)	$[mi-1]f$	a	(FGSC 386)
(IV)	$[mi-1]$	A	(FGSC 343)
(V)	$[mi-1]$	a	(FGSC 384)

