

Locus designations for temperature-sensitive mutants

D. D. Perkins
Stanford University

T. Ishikawa
University of Tokyo

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

Recommended Citation

Perkins, D. D., and T. Ishikawa (1972) "Locus designations for temperature-sensitive mutants," *Fungal Genetics Reports*: Vol. 19, Article 16. <https://doi.org/10.4148/1941-4765.1874>

This Linkage Data 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 cad@k-state.edu.

Locus designations for temperature-sensitive mutants

Abstract

Locus designations for temperature-sensitive mutants

Creative Commons License



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

Perkins, D. D. and T. Ishikawa. Locus designations

for irreparable temperature-sensitive mutants.

genes as shown in Table 1. "n-7 and -8 originated in experiments of Inoue and Ishikawa (1970 Japan. J. Genet. 45:357) at survivors of filtration enrichment of UV-treated conidia from wild type 74A. The original "n-8 isolate contained reciprocal translocation T(I;V)T27M9 from which it has been separated. T53M50 was originally called un(31) and T27M9 was coined "n(I) by Inoue and Ishikawa.

Irreparable temperature-sensitive mutants have been mopped at two new loci, bringing to eight the number of mopped conditional lethals of this type. It is proposed to call the new loci "n-7 and "n-8, and to redesignate the six previously mopped irreparable temperature-sensitive

Table 1. loci of irreparable temperature-sensitive genes.

| Proposed locus symbol | Isolation No. | Former locus symbol | Linkage group and arm | Reference for location |
|-----------------------|---------------|---------------------|-----------------------|---|
| <u>un-1</u> | 44409 | <u>un (44409)</u> | IR | Perkins et al. 1969 <i>Genetica</i> 40:247. |
| <u>un-2</u> | 46006 | <u>un (46006)</u> | IC | Perkins et al. 1969 |
| <u>un-3</u> | 55701 | <u>un (55701)</u> | IL | Howe 1962 <i>Microb. Genet. Bull.</i> 18:12. |
| <u>un-4</u> | 66204 | <u>un (66204)</u> | VIL | Stadler 1956 <i>Genetics</i> 41:528. |
| <u>un-5</u> | b39 | <u>un (b39)</u> | IL | Kuwana 1960 <i>Japan. J. Gene.</i> 35:49. Perkins et al. 1969. |
| "n-6 | 83106 | "n (83106) | IIIR | Perkins et al. 1969 |
| "n-7 | T53M50 | | IR | |
| <u>un-8</u> | T27M9 | | IVR | |

The newly proposed symbols in Table 1 have the advantage of brevity and of consistency with other series of "mimic" loci that share a common phenotype. When precise information becomes available regarding the characteristic defect of a particular "n mutant, a decision can be made whether to replace the present symbol with one that is more explicit.

Table 2. Mop locations of new un mutants.

| Mutant | Sequence and % recombination | Parental | Numbers | | |
|----------------------|---|----------|-----------|-----------|-------------|
| | | | Singles 1 | Singles 2 | Doubles 1,2 |
| <u>"n-7 (T53M50)</u> | <u>un-7</u> (4) <u>aur</u> (22) <u>os-1</u> | 44 | 2 | 13 | 0 |
| | <u>act-1</u> (12) <u>al-1</u> (1) <u>un-7</u> | 74 | 10 | 1 | 0 |
| <u>"n-8 (T27M9)</u> | <u>cys-10</u> (47) "n-8 (5) <u>col-4</u> | 39 | 38 | 4 | 0 |
| | "n-8 (0) <u>pyr-1</u> centromere <u>IVR→VIR</u> ALS159 "n-8 (by duplication-coverage) | 47 | 0 | | |

Linkage relations of the new mutants are summarized in Table 2. The isolation number for the al-1 allele is ALS4. "n-8 is known to be right of the centromere in IV because it is heterozygous in duplications from T(IVR→VIR)ALS159. • ~ = Department of Biological Sciences, Stanford University, Stanford, California 94305 and Institute of Applied Microbiology, University of Tokyo, Bunkyo-ku, Tokyo 113, Japan.