

## Map location of ace-5.

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### Abstract

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Linkage data of acetate mutants, ace-2, ace-3, ace-4, ace-5, and ace-7, have been reported (Kuwana and Okumura 1979 Japan. J. Genetics 54:235). Each of these genes except ace-5 was mapped between the two nearest loci which have been unequivocally ordered on the basis of three-point crosses (Radford 1975 Neurospora News 1. 22:17). The ace-5 gene was mapped between am and ure-1 on the right arm of linkage group V. The gul-1 gene had already been located in this region in the Radford map. This report deals with the exact location of ace-5 in relation to gul-1.

All the strains used in this work carried the cot-1 mutant because the gul-1 allele can be detected only in combination with cot-1. Results, presented in Table 1, show that the gene sequence near ace-5 is: am gul-1 - ace-5 - ure-1 -

TABLE 1

Linkage data of ace-5 in the format of Perkins (1959 Genetics 44:1185)

| Zygote genotype<br>and<br>recombination<br>percent | Parental<br>combina-<br>tion | Recombinations         |                        |                               | Total<br>and<br>percent<br>germination | Marker<br>isolation<br>numbers |
|--|------------------------------|------------------------|------------------------|-------------------------------|--|--------------------------------|
|  |                              | Singles<br>region<br>1 | Singles<br>region<br>2 | Doubles<br>regions<br>1 and 2 |  |                                |
| <u>+ gul-1 ace-5</u>                               | 4b3                          | 2                      | 4                      | 0                             | 92%                                    | KG513                          |
| <u>am + +</u><br>0.33 0.65                         | 444                          | 1                      | 2                      | 0                             | 68%                                    | GA1<br>KG514                   |
| <u>gul-1 ace-5 +</u>                               | 428                          | 2                      | 0                      | 0                             | 57%                                    | GA1                            |
| <u>+ + ure-1</u><br>0.46 0.23                      | 441                          | 2                      | 2                      | 0                             | 91%                                    | KG512<br>3                     |