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Abstract

A more precise mapping of trp-5 in Neurospora crassa

Ahmad, <u>M</u> and <u>S</u>. Hoque.

A more precise mapping of trp-5 in Neurospora Crassa.

Ahmad <u>et al</u>. (1968 Genet. Res. <u>12</u>:103) reported that a new locus, trp-5, in <u>Neurospora</u> <u>crassa</u> <u>Was</u> located in linkage group VR 26.3 centimorgans from <u>ilv-1</u> and 21.8 centimorgans from lys-2. This location of trp-5 left the position of trp-5 in doubt with respect to a number of other loci (<u>his-1, arg-4, arg-8, inl</u>, pab-1, <u>met-3, pan-2</u>), all of which lie distal to lys-2 in VR.

While other data on linkage relationships of loci in VR will be reported later, an analysis of a three point cross between <u>met-3 (92935)</u> and <u>inl</u> (37401), trp-5 (A420) are presented below.

Zygote	genotype and reconbination		Parental Types	Recombinants			
percent				1	<u>2</u>	1,2	Total
met-3	+	inl	546	24	24	11	1380
+	trp-5	+	743	7	15	9	
(3.7))	(4.3)					

The trp-5 locus thus lies distal to <u>inl</u> but proximal to <u>met-3</u>. The <u>pab-1</u> locus is also located between <u>inl</u> and <u>met-3</u>, but efforts to determine the relative positions of trp-5 and <u>pab-1</u> have not been successful ⁵⁰ far due to the leakiness of <u>pab-1</u> (alleles 1633, 830 and 5359). The map distance of about 8.0 units between <u>met-3</u> and <u>inl</u> reported above agrees with the map distance between these loci as shown by Fincham and Day (1971 <u>Fungal Genetics</u>, Third Ed.) but differs from the findings of Grant (1945, MA. Thesis, Stanford University) who estimated the distance between met-3 and <u>inl</u> to be 23.7 units. - - Botany Department, The Queen's University of Belfast, Northern Ireland; Biology Department, The Quaid-I-Azam University, Islamabad, Pakistan.