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Cytochrome spectra of cytoplasmic mutants

Abstract

Cytochrome spectra of cytoplasmic mutants

Bertrand, H. and T. H. Pittenger.

Cytochrome spectra of three cytoplasmic mutants.

The cytochrome difference spectra obtained from mitochondrio from several cytoplasmic mutants of Neurorpora were described by Griffiths et al. (Neurospora Newsl. 13: 16). The list of the mutants that were examined did not include [SG-1], [exn-1] and [stp-c] A culture of [SG-1] (RL3202-23), which presumably has cytoplasmic continuity with the acriflavin-induced [SG] (Srb 1958 Cold Spring Harbor Symp. Quant. Biol. 23:269), was kindly provided by A. M. Srb. The other two mutants, [exn-1] and [stp-c], were obtained after N-methyl-N'-nitro-N-nitroroguanidine treatments of conidia and vegetatively growing cultures (Bertrand and Pittenger 1968 Genetics 60: 161). Mitochondria from young cultures of there three mutants contain the three major cytochromes in relative amounts comparable to mitochondrio from the group that includes [poky] The notable feature ore on absence of cytochromes a + a; (610 mµ), low amounts of cytochrome b (560 mµ) and on excess of cytochrome c (550 mu). [SG-] differs from the other mutants in that its difference spectrum has an exceptionally pronounced R-peak for cytochrome c Whether this feature is characteristic of [SG-1] or is specific to strain RL3202-23 has not yet been determined. = = = Division of Biology, Kansas State University, Manhattan, Kansas 66502.

0.30 [SG-I] 0.25 0.20 ANCE go.15 ABS0 ° 0.10 0.05 500 580 660 WAVELENGTH (mu)