The Role of Carnitine and Carnitine Acetyltransferase in the Metabolism of *Candida krusei*

by

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SUMMARY

Carnitine acetyltransferase activity was demonstrable in the soluble fraction of extracts of Candida krusei grown on both short and long-chain fatty acids. Activity of this enzyme was also present in extracts of cells grown on glucose but at a greatly reduced level. Activity was greatest in cells grown on butyrate and oleate; it is postulated that carnitine acetyltransferase may function to supply acetyl-CoA formed from the β-oxidation of these substrates to extramitochondrial locations. In cells grown on acetate, this enzyme would be required for the translocation of acetyl-CoA into mitochondria where it is oxidized via the TCA cycle.

Carnitine palmitoyltransferase could not be detected in any of the extracts employed.

Addition of carnitine to cells growing in minimal medium plus acetate stimulated growth significantly.

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