Protein biosynthesis in trypanosomidae. II. The metabolic fate of dl-leucine-1-C14 in Trypanosoma cruzi

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Protein biosynthesis in trypanosomidae. II. The metabolic fate of dl-leucine-1-C14 in Trypanosoma cruzi. Experimental Parasitology 21, 154-159. Trypanosoma cruzi is able to metabolize dl-leucine-1-C14 incorporating its radioactivity into various metabolic fractions. Utilization of leucine is higher in the presence of glucose than in its absence. Both substrates are metabolized individually or together as shown by the respiratory CO2 production. The path of leucine catabolism seems to be similar to that which has already been described for mammals. Leucine seems also to enter the Krebs cycle and possibly other alternative pathways since glycolic acid is produced with other nonvolatile acids and, thus, indicates the possibility of the glyoxylate shunt. Antibiotics do not affect the metabolism of leucine, with the exception of that which is concerned with its incorporation into proteins. © 1967.