

The Influence of Tris-(2-hydroxyethyl)ammonium Aroxy-, and Arylthio(sulfonyl)acetates on the Growth of Bifidobacteria

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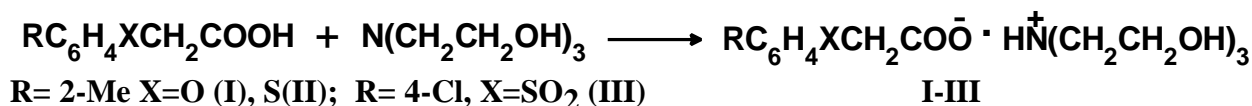
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Tris-(2-hydroxyethyl)ammonium salts of aroxy- and arylthioalkancarbon acids are known to be biological active compounds and show promise as prodrugs. The example is trekresan - tris-(2-hydroxyethyl)ammonium salt of 2-kresoxyacetic acid which has become the medicine practice as a broad spectrum adaptogen. It positive influences on vital cells to increase the viability and stability against unfavorable factors.

We have investigated the influences of trekresan, it's sulfur analogs - tris-(2-hydroxyethyl)ammonium salt of 2-methylthioacetic acid and active stimulator to growth of yeast which is tris-(2-hydroxyethyl)ammonium salt of 4-chlorophenylsulfonylacetic acid on the growth and vital activity of bifidobacteria playing the unique role in the human life by keeping human health on the optimum level.

Tris-(2-hydroxyethyl)ammonium salts of 2-methylphenoxy-, 2-methylphenylthio- and 4-chlorophenyl-sulfonylacetic acids were obtained by the interaction of corresponding acids with triethanolamine.



Addition of the preparations in amount of 10^{-2} - 10^{-6} weight % to the bacteria cultivation medium was reliably determined to stimulate the growth and reproduction of *Bifidobacterium adolescentis MC-42*. In the bifidobacteria cultivation milk-hydrolysed medium the quantity of the vital active cells in 1 ml of the medium increases to 10^{10} - 10^{12} in contrast to 10^8 in controls. The most physiological activity was noted when trekresan in concentration 10^{-4} weight % was added to the cultivation medium.