

## Immuno-Active Properties of Indol-3-ylthioacetate Tris-(2-hydroxyethyl)ammonium

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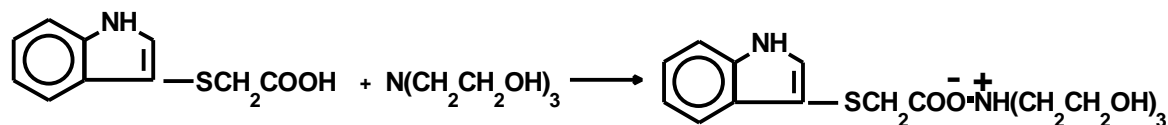
The increasing number of patients with acquired immuno-deficiency (including viral and retroviral lesions of the immunic system), and immuno-compromised patients (radiotherapy, chemotherapy, trauma, deep burn, drug overdosage, stress) makes the search for new potent immuno-active substances the problem of vital importance.

The tris-(2-hydroxyethyl)ammonium salts of arylheteroalkanecarboxylic acids are known to possess biological activity and thus to be promising for the preparation of drugs.

We have studied the effect of the indol-3-ylthioacetate tris-(2-hydroxyethyl)ammonium salt using test models of immunopathologic states, i.e., immunodeficiency (ID) and immunocomplex glomerulonephritis (ICG) in the mice BDF1.

After the course of treatment (12 injections) the animals of the two test groups showed a reliable mass gain, ESR decrease; in animals with ICG a decreased proteinuria and inhibition of the development of chronic inflammatory process were observed (morphological analysis data). The substance reduces the phagocyte activity of macrophages in the ID and ICD mice and enhances spontaneous synthesis of the tumor necrosis factor in the ID mice, normalizes hematocrit and the hemoglobin content, removes reticulocytosis in the peripheral blood, markedly influences the early stages of differentiation of bone marrow erythroid precursors. Erythropoiesis-modulating properties of the substance have been found.

Indol-3-ylthioacetate tris-(2-hydroxyethyl)ammonium was prepared by the reaction of acid with triethanolamine:



Thus, the experimental studies of indol-3-ylthioacetate tris-(2-hydroxyethyl)ammonium both *in vitro* (inhibiting effect on spontaneous antigen- and mitogen-induced proliferation, stimulation of spontaneous and LPS stimulation of IgG synthesis) and *in vivo* in intact and sick animals indicate that the clearly-defined immuno-erythropoiesis-modulating and antiinflammatory properties in combination with a number of other biologically essential characteristics of the compound studied provide the basis for preparing medicines of new generation.

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