



[54] PHARMACEUTICAL COMPOSITIONS
CONTAINING ALKYLARYL POLYETHER
ALCOHOL POLYMER

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[*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

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Related U.S. Application Data

[60] Division of application No. 08/638,893, Apr. 25, 1996, Pat. No. 5,849,263, which is a continuation-in-part of application No. 08/299,316, Aug. 31, 1994, Pat. No. 5,512,270, which is a continuation-in-part of application No. 08/039,732, Mar. 30, 1993, abandoned.

[51] Int. Cl.⁷ A61K 9/12; A61K 31/765

[52] U.S. Cl. 424/45

[58] Field of Search 424/45, 78.05,
424/78.06, 78.08, 78.37; 514/179, 885,
887

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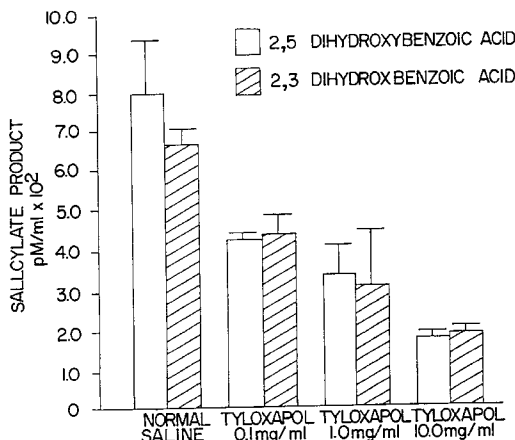
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[57] ABSTRACT

There is provided novel pharmaceutical compositions containing tyloxapol as the active ingredient. These formulations comprise tyloxapol at concentrations above 0.125%, preferably from about 0.25% to about 5.0%. In addition, the invention encompasses pharmaceutical compositions having reduced hypertonicity which compositions comprise tyloxapol in pharmaceutically acceptable solutions without significant concentrations of hypertonic agents or other active ingredients NaHCO₃, or active phospholipids, such as DPPC. The less hypertonic formulations allow one to derive all the benefits of the active ingredient tyloxapol, such as its reduced toxicity and enhanced half-life, while avoiding or reducing side effects, such as bronchospasms, associated with the various hypertonic agents or other active ingredient agents.

9 Claims, 8 Drawing Sheets



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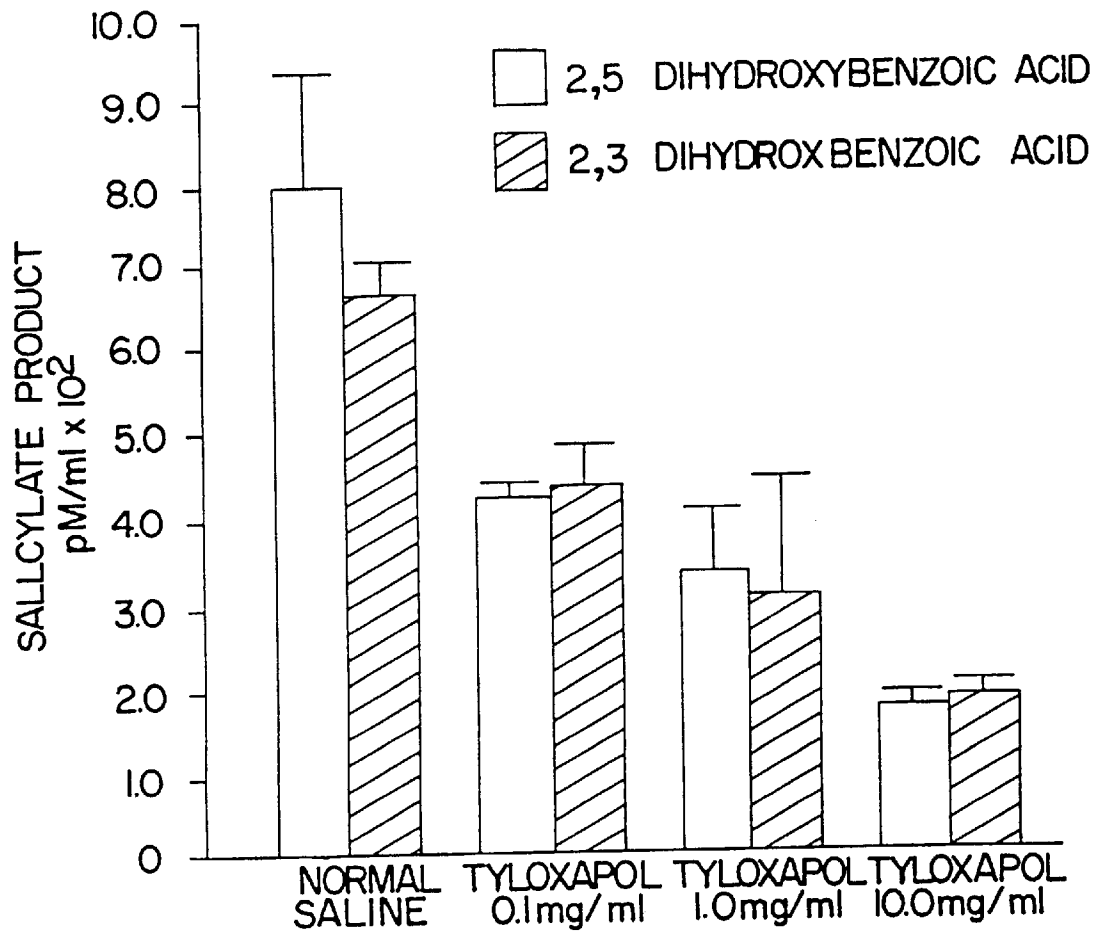


FIG. 1.

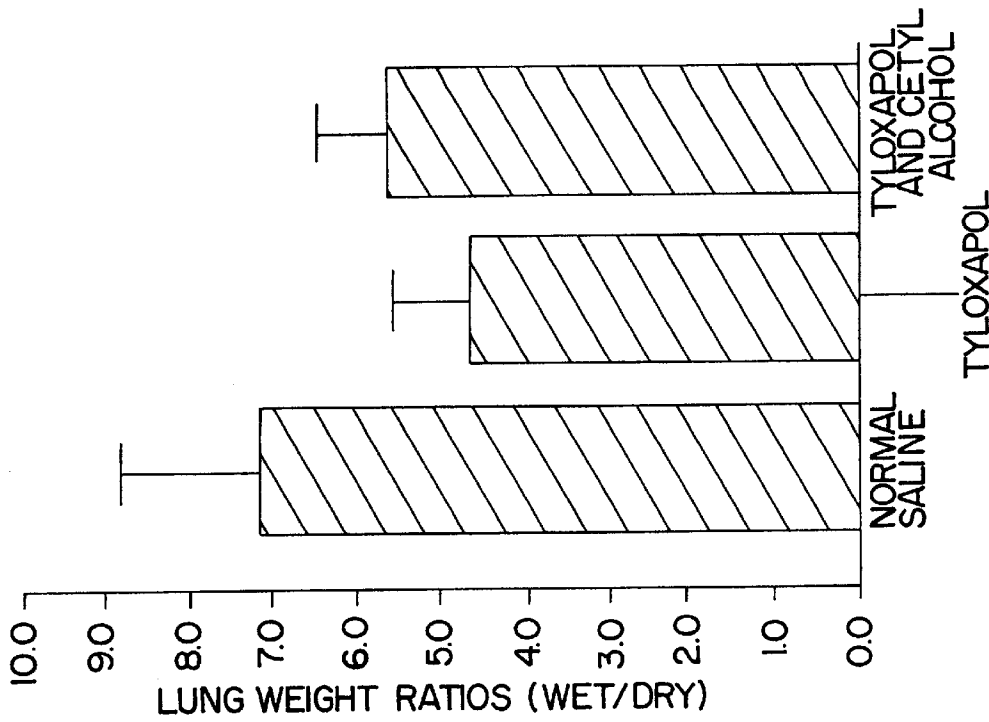


FIG. 3.

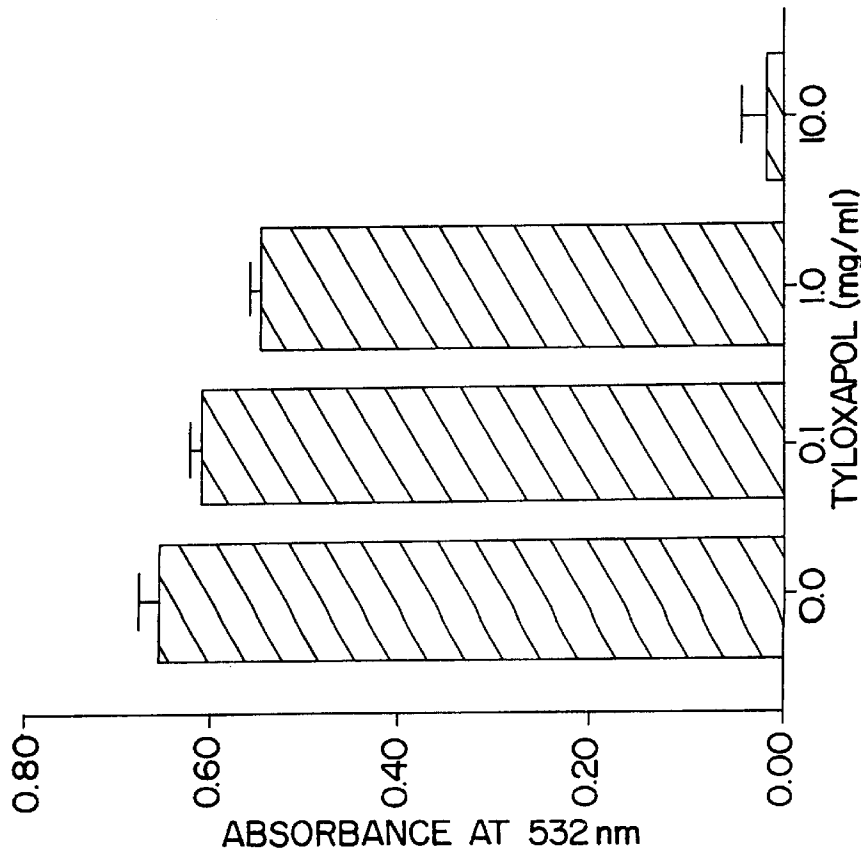


FIG. 2.

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