CLAIMS

1. A method of isolating ingenol from a mixture of diterpenoid esters and ingenol esters combining the phases of hydrolyzing the ingenol esters and ~~extracting/~~isolating ingenol from said mixture in a single step~~.~~

~~2. The method according to claim 1~~, wherein the mixture of diterpenoid esters and ingenol esters is subjected to a single step of combined treatment with an acidified water and organic solvent solution.

2~~3~~. The method according to ~~any one of~~ claims ~~1 or 2~~, wherein the acidified water to organic solvent ratio is 1:1.

3~~4~~. The method according to ~~any one of~~ claims 1 or~~to~~ 2~~3~~, wherein the organic solvent is THF.

4~~5~~. The method according to any one of claims 1 to 3~~4~~, wherein the acidified water contains inorganic salts.

5~~6~~. The method according to any one of claims 1 to 4~~5~~ wherein the acidified water contains NaCl.

6~~7~~. The method according to any one of claims 1 to 5~~6~~, characterized in that the acidified water and organic solvent solution consists of a combination of 2N H_2SO_4 and H_2O plus NaCl at 35% weight/volume at a ratio of 1:1.

7~~8~~. The method according to any one of claims 1 to 6~~7~~, further comprising an additional phase of purifying isolated ingenol.

8~~9~~. The method according to claim 7~~8~~, characterized in that the phase of purifying isolated ingenol is performed by means of gravity column chromatography.

9~~10~~. The method according to ~~any one of~~ claims 7~~8~~ or~~to~~ 8~~9~~, wherein the~~optionally~~ purified isolated ingenol is subjected to an additional process of partial chemical synthesis to produce a derivative at position 3 selected from: ingenol-3-tigliate, ingenol-3-angelate or mixtures thereof.

10~~11~~. The method according to claim 9~~10~~, wherein the additional process of partial chemical synthesis for obtaining ingenol derivatives at position 3 to which the ~~optionally~~ purified isolated ingenol is subjected has ingenol-5,20-acetonide as the common intermediate compound.

11~~12~~. A method of isolating ingenol from plant material comprising the phases of:

a) Subjecting the plant material to mechanical stirring in a solution of sodium methylate in methanol.
b) Neutralizing the preceding reaction with a solution of a glacial acetic acid or perchloric acid.
c) Filtering or suctioning the preceding solution.
d) Washing the pellet obtained in the previous phase with methanol.
e) Concentrating the pellet by means of vacuum techniques.
f) Extracting from the pellet the fraction containing ingenol esters with petroleum ether.
g) Isolating ingenol from the remaining compounds contained in the fraction obtained in preceding phase f) by means of treating with acidified water and THF.
h) Optionally purifying the isolated ingenol

12~~13~~. The method according to claim 11~~12~~, characterized in that the plant material are *Euphorbia lathyris* seeds.

13~~14~~. The method according to ~~any one of~~ claims 11~~12~~ or 12~~13~~, wherein the concentration of sodium methylate in methanol is 0.20 N and the time for which the seeds are subjected to mechanical stirring is 4 hours.

14~~15~~. The method according to any one of claims 11~~12~~ to 13~~14~~, characterized in that the filtration or suction of step c) is performed on celite.

15~~16~~. The method according to any one of claims 11~~12~~ to 14~~15~~, characterized in that the acidified water solution ~~preferably~~ consists of a combination of 2N H_2SO_4 and H_2O plus NaCl at 35% weight/volume at a ratio of 1:1.

16~~17~~. The method according to any one of claims 11~~12~~ to 15~~16~~, characterized in that the phase of purifying ingenol is performed by means of gravity column chromatography.

17~~18~~. The method according to claim 16~~17~~, characterized in that a silica gel column is used as stationary phase with a petroleum ether-ethyl acetate mobile phase.

18~~19~~. The method according to any one of claims 11~~12~~ to 17~~18~~, wherein the ~~optionally~~ purified isolated ingenol is subjected to an additional process of partial chemical synthesis to produce a derivative at position 3 selected from: ingenol-3-tigliate, ingenol-3-angelate or mixtures thereof.

19~~20~~. The method according to claim 18~~19~~, wherein the additional process of partial chemical synthesis for obtaining ingenol derivatives at position 3 to which the ~~optionally~~ purified isolated ingenol is subjected has ingenol-5,20-acetonide as the common intermediate compound.