CLAIMS

1. A composition comprising underivatized, soluble β–glucan having immunostimulatory properties, which can be administered in single doses up to about 6 mg/kg.

2. The composition of claim 1 wherein the underivatized, soluble β–glucan does not induce biochemical mediators, which cause inflammatory side effects.

3. The composition of claim 2 wherein the biochemical mediators are interleukin-1β, tumor necrosis factor-α or both.

4. The composition of claim 1 wherein the underivatized, soluble β–glucan is derived from *Saccharomyces cerevisiae*.

5. The composition of claim 1 wherein the underivatized, soluble β–glucan is between about 25,000 Da and about 380,000 Da.

6. A composition comprising underivatized, soluble β–glucan having an average molecular weight between about 120,000 Da and about 205,000 Da, the composition capable of being administered to a human or animal at a dose of up to about 6 mg/kg.

7. The composition of claim 6 wherein the underivatized, soluble β–glucan contains no more than about 1.6% reducing sugar of total hexose.

8. The composition of claim 6 wherein the underivatized, soluble β–glucan contains less than about 25 μg/mg of hexose.

9. The composition of claim 6 wherein no more than 8% of humans administered the undervatized, soluble β–glucan show any one adverse event.

Claims

1. A composition comprising underivatized, soluble β–glucan having immunostimulatory properties, which can be administered in single doses between 3 mg/kg and 6 mg/kg and wherein the soluble β-glucan has a molecular weight over 380,000 Da in an amount less than or equal to 10% and a molecular weight under 25,000 Da in an amount less than or equal to 17%.

2. The composition of claim 1 wherein the underivatized, soluble β–glucan has a polydispersity less than or equal to 2.5.

3. The composition of claim 1 wherein the underivatized, soluble β–glucan is derived from *Saccharomyces cerevisiae*.

4. A composition comprising underivatized, soluble β–glucan having an average molecular weight between 120,000 Da and 205,000 Da, the composition capable of being administered to a human or animal at a dose of 6 mg/kg and wherein the soluble β-glucan has a molecular weight over 380,000 Da in an amount less than or equal to 10% and a molecular weight under 25,000 Da in an amount less than or equal to 17%.

5. The composition of claim 4 wherein the underivatized, soluble β–glucan contains no more than 1.6% reducing sugar of total hexose.

6. The composition of claim 4 wherein the underivatized, soluble β–glucan contains less than 25 μg ergosterol/mg hexose.

7. The composition of claim 4 wherein the undervatized, soluble β–glucan further comprises polymeric chains associated into triple helices.