Claims:

1. Use of plinabulin in the preparation of a medicament for the treatment of a taxane-induced grade 3 or 4 neutropenia in a subject having a taxane-induced neutropenia.

2. The use of claim 1, wherein the medicament is for administration prior to administration of the taxane.

3. The use of claim 1, wherein the medicament is for administration after administration of the taxane.

4. The use of any one of claims 1 to 3, wherein the medicament is for inducing a neutropenia rate that is lower than that induced by taxane alone.

5. The use of any one of claims 1 to 4, wherein the taxane is docetaxel.

6. The use of claim 5, wherein the taxane-induced neutropenia is induced by administration of docetaxel at a dose of about 75 mg/m2.

7. The use of any one of claims 1 to 4, wherein the taxane is paclitaxel.

8. The use of claim 7, wherein the taxane-induced neutropenia is induced by administration of paclitaxel at a dose of about 50 to 250 mg/m2.

9. The use of any one of claims 1 to 8, wherein the medicament comprises a dose of plinabulin of about 10 to 50 mg/m2.

10. The use of claim 9, wherein the medicament comprises a dose of plinabulin of about 20 mg/m2 or 30 mg/m2.

11. The use of any one of claims 1 to 10, wherein the weight ratio of taxane dosage and plinabulin dosage is about 1.5:1 to 4:1.

12. The use of claim 1 or 3, wherein the medicament is for administration about 1 to 24 hours after taxane administration.

13. The use of claim 12, wherein the medicament is for administration about 2 hours after taxane administration.

14. The use of any one of claims 1 to 13, wherein the medicament is for reducing a neutropenia rate by at least 4% for grade 3 neutropenia.

15. The use of any one of claims 1 to 14, wherein the medicament is for reducing a neutropenia rate by at least 15% for grade 4 neutropenia.