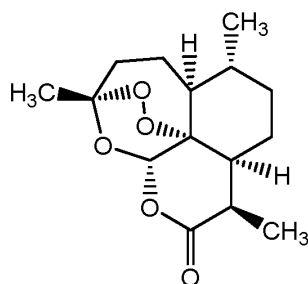
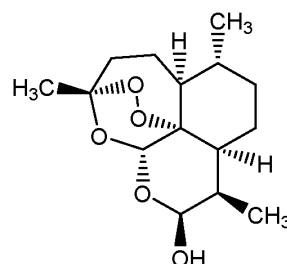
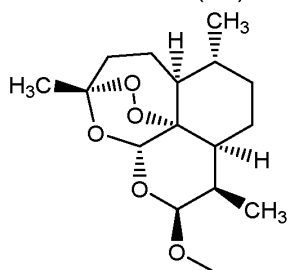
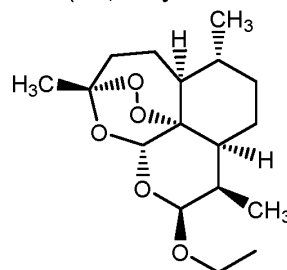
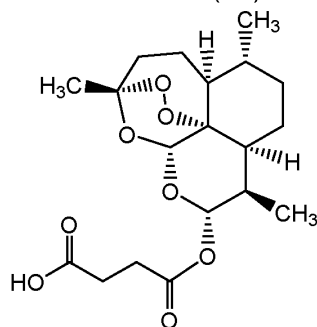


CLAIMS

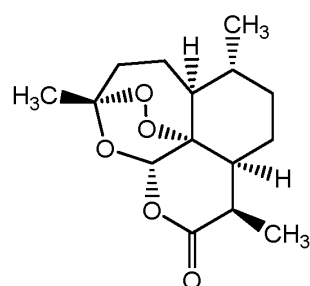
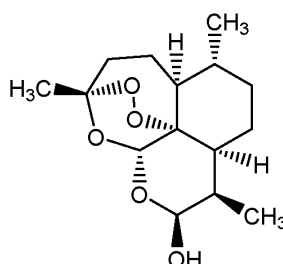
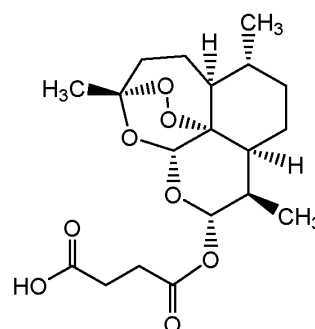
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1. A pharmaceutical composition comprising
- a) an artemisinin compound (**1**)
or a pharmaceutically acceptable salt, cocrystal, or solvate thereof;
- 10 b) 5-aminolevulinic acid (**2**), methyl-5-aminolevulinic acid (**2b**), or a pharmaceutically acceptable salt or solvate thereof; and
- c) at least one chemotherapeutic agent, preferably at least one anti-glioblastoma drug.
2. The pharmaceutical composition according to claim 1, wherein the artemisinin compound (**1**)
- 15 is selected from

artemisinin (**1a**)arteminol (**1b**, dihydroartemisinin)artemether (**1c**)arteether (**1d**)artesunate (**1e**)

or a pharmaceutically acceptable salt, cocrystal, or solvate thereof.

3. The pharmaceutical composition according to claim 1 or 2, wherein the anti-glioblastoma drug is selected from the group comprising or consisting of temozolomide, dexamethasone, lomustine, methotrexate, everolimus, carmustine, cyclophosphamide, cisplatin, carboplatin, 5-fluorouracil, triptolide, homoharringtonin, dactinomycin, doxorubicin, epirubicin, idarubicin, ribavirin, topotecan, flubendazole, itraconazole, vindesine sulfate, cerivastatin, vincristine, vinorebine, nisoldipine, deoxyadenosine, chloro-2'-deoxyadenosine, 5-nonyloxytryptamine, 2(1H)-pyrimidinone, pitavastatin, sertraline, irinotecan, clofazimine, and docetaxel.
4. The pharmaceutical composition according to any one of the claims 1 – 3, wherein a molar ratio of the artemisinin compound (**1**) and the 5-aminolevulinic acid (**2**) or the methyl-5-aminolevulinic acid (**2b**) is in a range of 1:5 to 1:5000.
5. The pharmaceutical composition according to any one of the claims 1 – 4, wherein the pharmaceutical composition further comprises a pharmaceutically acceptable carrier, excipient and/or diluent.
6. The pharmaceutical composition according to any one of the claims 1 – 5, wherein the at least one anti-glioblastoma drug is selected from the group consisting of temozolomide, lomustine, cisplatin, and 5-fluorouracil.
7. The pharmaceutical composition according to any one of the claims 1 – 6 comprising:

artemisinin (**1a**)dihydroartemisinin (**1b**)artesunate (**1e**)

or a pharmaceutically acceptable salt, cocrystal, or solvate thereof;

- b) 5-aminolevulinic acid (**2**) or a pharmaceutically acceptable salt or solvate thereof; and
- c) at least one anti-glioblastoma drug selected from the group consisting of temozolomide, lomustine, cisplatin, and 5-fluorouracil.

8. The pharmaceutical composition according to any one of the claims 1 – 7 for use in medicine.
- 5 9. The pharmaceutical composition according to any one of the claims 1 – 7 for use in the prophylaxis and/or treatment of hematopoietic cancers, brain cancer, pancreatic cancer, liver cancer, breast cancer, and lung cancer and preferably brain cancer.
- 10 10. The pharmaceutical composition for use according to claim 8 or 9, wherein the pharmaceutical composition is in a form of a tablet, capsule, syrup, solution, suspension, emulsion, or gel.
11. The pharmaceutical composition for use according to any one of the claims 7 – 10,
15 wherein the pharmaceutical composition is administered by oral, intratecal, intravenous, subcutaneous, parenteral application or by inhalation.
12. The pharmaceutical composition for use according to any one of the claims 7 – 11,
20 wherein the artemisinin compound (**1**) is administered in a range of 0.01 to 100 mg/kg per body weight per day and the 5-aminolevulinic acid or the methyl-5-aminolevulinic acid is administered in a range of 0.01 to 200 mg/kg per body weight per day.
13. The pharmaceutical composition for use according to any one of the claims 7 – 12,
25 wherein the at least one anti-glioblastoma drug is administered in a range of 0.01 to 100 mg/kg per body weight per day.
14. The pharmaceutical composition for use according to any one of the claims 7 – 13,
30 wherein the brain cancer is selected from subtypes proneural (PN), mesenchymal (MES), and classical (CL) glioblastoma.
15. The pharmaceutical composition for use according to any one of the claims 7 – 14,
35 wherein the prophylaxis and/or treatment of hematopoietic cancers, brain cancer, pancreatic cancer, liver cancer, breast cancer, and lung cancer and preferably brain cancer is performed in combination with a radiotherapy, immunotherapy, electromagnetic field therapy, hyperthermia therapy, chemotherapy, cancer immunotherapy and/or any other small molecule based therapy.