

Title (en)
CHEMOSENSITIZER

Title (de)
CHEMOSENSIBILISATOR

Title (fr)
AGENT DE CHIMIOSENSIBILISATION

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Application
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Abstract (en)
[origin: WO0200164A2] Chemotherapeutic agents are used to treat infections caused by bacteria, virus, protozoa, parasites, and various malignant diseases like cancer. The major problem associated with use of chemotherapeutic agents is resistance to chemoptherapeutic agents. Mechanisms underlying resistance to chemotherapeutic agents include inactivation/modification of antibiotic (beta-lactams, chloramphenicol), insensitive target site (beta-lactams, glycopeptides, macrolides, tetracyclines), decreased drug accumulation in the form of enhanced efflux (tetracyclines, chloroquine, macrolides, anticancer drugs), by-pass of antibiotic sensitive step (methicillin, sulphonamides) etc. The common mechanisms underlying drug resistance is to restrict concentration of drug at the site of action usually intracellular. This can be in the form or restricting the entry of the drug into the cell by various mechanisms including altered cell wall permeability. It can also be in the form of removing the drug from site of action e.g. intracellular so that therapeutic concentration are not achieved. The drugs restoring sensitivity of chemotherapeutic agents are broadly known as chemosensitizers. Compounds belonging to a group of R-1-3-benzodioxole are found to be chemosensitizer as per the present invention. Piperine is one such compound belonging to a group of R-1-3-benzodioxole are found to be chemosensitizer as per the present invention. Piperine is one such compound belonging to R-1-3 benzodioxole group. It is found to reverse resistance to chemotherapeutic agents like rifampicin at dose which is easiyl achievable after oral ingestion of the drug.

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Citation (search report)

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- See references of WO 0200164A2

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