

ABSTRACT

ZINC-PGA COMPOSITIONS AND METHODS FOR TREATING CANCER

The invention relates to pharmaceutical compositions comprising a zinc²⁺ salt and a γ -polyglutamic acid carrier, and, optionally, an NF-kB inhibitor as a tumor-sensitizing agent, and methods for using such compositions to treat tumors in patients. An in vitro flow cytometric analysis of human cancer lines treated with one embodiment of a ZnPGA composition, Figure 2, demonstrate that the methods of the invention induce PARP1-mediated tumor necrosis, the method comprising administering a therapeutically effective amount of a Zn(II) salt and a γ -polyglutamic acid carrier to the tumor. Methods of treating a broad spectrum of human tumors, including tumors with a drug-resistant phenotype, using the disclosed compositions are provided. Tumors that respond to the pharmaceutical compositions disclosed herein include neuroendocrine (neuroblastoma), gastric, uterine, and lung tumors.

Figure 2