Introduction

Prostate cancer (PCa) is one of the most serious health and social problems today. It is the most commonly diagnosed cancer in elderly men and it is the second leading cause of male cancer death [1,2]. More than 30% of early diagnosed cases do not survive more than 5 years, and 20% of patients who undergo primary treatment for prostate cancer still develop metastatic disease [3]. Due to such alarming statistics, there is a constant need for new and effective drugs which could enhance the currently used forms of therapy of the androgen-dependent prostate cancer, and/or delay the recurrence of the lethal androgen-refractory form of the disease. There is also a demand for drugs which reduce chemoresistance of the androgen-insensitive form of hPCa. Data from epidemiological, eco-environmental [4,5], Nutritional Prevention of Cancer Trials [6,7] and clinical trials [8] suggest that selenium (Se) may decrease the risk of some types of human cancers and can prevent prostate cancer. It is well recognized that dietary selenium is important for a healthy immune response [9]. Selenium is an essential dietary component for humans and is regarded as a cancer-preventive and cytoprotective agent in both animal models and humans. Effects of Se supplementation depend on the chemical form in which Se is provided. The organic form of...