

Abstract

The antimutagenic effects of the aqueous tea extracts from Kenyan black, green and purple cultivars were evaluated by the Ames test using *Salmonella typhimurium* tester strains TA 1538. Results obtained showed that tea had no toxicity or mutagenic activity at a concentration of 20% (w/v) unlike the mutagen sodium azide. However, using the formulae, percentage inhibition = $[1-T/M] \times 100$ where T is number of revertants per plate in presence of mutagen and test sample and M is number of revertants per plate in positive control, tea extracts had a significant ($P < 0.05$) antimutagenic activity where the percent inhibition was 65% for green tea, 38% for purple tea and 19.17% for black tea. This was attributed to the radical scavenging activity of polyphenols. There is need therefore to carry out further research to help understand the precise mechanism of action especially for black and purple teas, and to explore other beneficial effects that these polyphenols may have, before they can be adopted for therapeutic use