**Abstract**

There has been an increasing interest in natural products with the ability to inhibit telomerase activity in tumour and cancerous cells. Green tea catechins have been reported previously to inhibit telomerase, but it was unknown whether catechins from other plant sources could exhibit this property. We isolated 2-(3,4-dihydroxyphenyl)-3,4-dihydro-2H-chromene-3,5,7-triol (catechin without the presence of a galloyl unit) from the stem bark of B. africana, and tested its ability to inhibit recombinant, partially purified telomerase produced in rabbit reticulocyte lysates. The B. africana catechin inhibited the telomere extension activity of telomerase with an IC50 of approximately 4.7 mg/ml. This finding indicates that the galloyl unit may not be solely responsible for the inhibition of telomerase activity by catechins. This is the first report of the telomerase-inhibiting potential of catechin from the stem bark of B. africana.