Cytotoxic Sesterterpenoids from Bornean Sponge Spongia sp.

ABSTRACT

Four scalarane sesterterpenoids, scalarolide acetate (1), scalarolide (2), 12-O-deacetyl-12 -epi-19-O-methylscalarin (3) and methyl 18- hydroxy- 19-norscalar-16 -en-20- carboxylate (4) were isolated from the Bornean sponge Spongia sp. The distinction between 12 α -OAc and 12 β -OAc, and 19-olide and 20-olide in sesterterpenes were revealed as well as previously not assigned relative configuration at 18-OH of 4 is reported herein for the first time. In addition, compounds 1-3 showed strong cytotoxic activities against adult T-cell leukemia (ATL), S1T cells. This is the first record of scalarane sesterterpenes from the Bornean sponge.