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Stelleralides A–C, Novel Potent Anti-HIV Daphnane-Type Diterpenoids from *Stellera chamaejasme* L.

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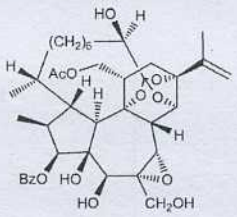
ABSTRACT



4 Stelleralide A

Three novel 1-alkyldaphnane-type diterpenes, stelleralides A–C (4–6), and five known compounds were isolated from the roots of *Stellera chamaejasme* L. The structures of 4–6 were elucidated by extensive spectroscopic analyses. Several isolated compounds showed potent anti-HIV activity. Compound 4 showed extremely potent anti-HIV activity (EC_{90} 0.40 nM) with the lowest cytotoxicity (IC_{50} 4.3 μM) and appears to be a promising compound for development into anti-AIDS clinical trial candidates.

Stellera chamaejasme L. (Thymelaeaceae) is a toxic perennial herb widespread in northern and southwestern China and Nepal. Its roots have been used in traditional Chinese medicine (TCM) as emulgent and dermatological agents. Previous studies on the chemical constituents in the roots of this plant have identified diterpenoids,[1,2] biflavonoids,[3–5] and lignans[6] with antitumor, antimalarial, and antibacterial activities. Highly functionalized daphnane

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