significantly decreased the release of histamine from mast cells by IgE-mediated degranulation.

Saponins from the leaf extract of *S. odorata* can serve as modulators of the cell signalling pathway. The leaf extract acts as an extra cellular signal to switch off extracellular enzymes that are required for the proliferation of ASM (airway smooth muscle cells) cells. The signal can then be transmitted into the nucleus, which in turn promotes DNA fragmentation of A549 lung cancer cell lines, suggesting that *S. odorata* can induce A549 cells to undergo programmed cell death. Recent experiments have also revealed the potential immune modulating property of the leaf extract (Gloria and Cristina 2001).

10.4.2 Phytochemistry

10.4.2.1 Phytochemical Screening

Phytochemical studies on plants in the *Schefflera* genus have revealed the presence of triterpenes, triterpenoid glycosides and saponins (Sabulal et al. 2008). Phytochemical analysis of the stem bark extract of *S. barteri* revealed the presence of anthocyanins, anthraquinons and saponins (Table 10.2) (Atsafack et al. 2015).

TABLE 10.2
Phytochemicals Reported from *Schefflera* Genus

Plant Species	Parts Used	Phytochemical Name	Source
S. octophylla	Bark	Oleanolic acid, asiatic acid	Schmidt et al. 1984; Sung et al. 1992
S. impressa C. B. Clarke	Bark	Oleanolic acid, β-amyrin, hederagenin	Schmidt et al. 1984; Srivastava and Jain 1989; Srivastava 1992
S. arboricola	Roots	Succinic acid, fumaric acid, tartaric acid	Po et al. 2000
		Oleanolic acid, 3-acctyloleanolic acid, mesembryanthemoidigenic acid, quinatic acid, betulinic acid	Guo et al. 2005
S. venulosa	Leaves	β-amyrin, betulinic acid, betulinic acid glucoside	Purohit and Rawat 1993
S. kwangsiensis Merr. ex Li	Aerial part	Ursolic acid	Xu et al. 2006
S. umbellifera	Leaves	Betulin	Mthembu et al. 2010
S. heptaphylla	Leaf stalks	Oleanolic acid	Wu et al. 2011
S. odorata Blanco	Leaves	Oleanolic acid, lutein	Consolacion and Kathleen 2005
S. abyssinica (Hochst. Ex A. Rich.) Harms	Leaves	Oleanolic acid, hederagenin	Tapondjou et al. 2006
S. delavayi		β-Amyrin, oleanonic acid	Jian and Xian 1990
S. capitata		Capitogenic acid	Jain and Khanna 1982