Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary Information

A triterpenoidal saponin fraction of *Conyza blinii* H.Lév. is a dual-targeting autophagy inhibitor for HeLa cells

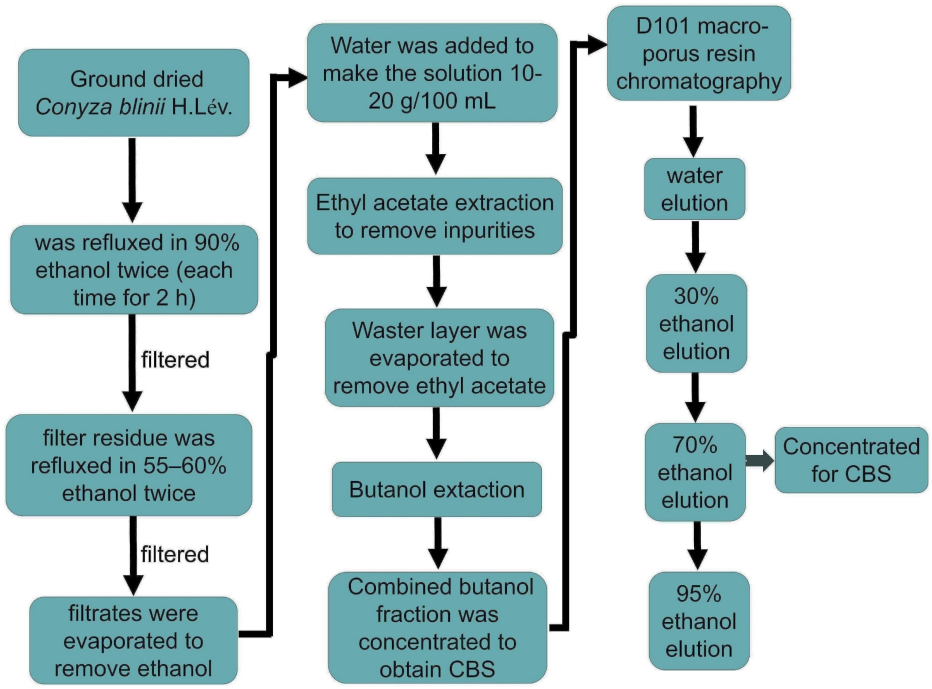


Figure SI-1: Flow chart for preparing CBS.

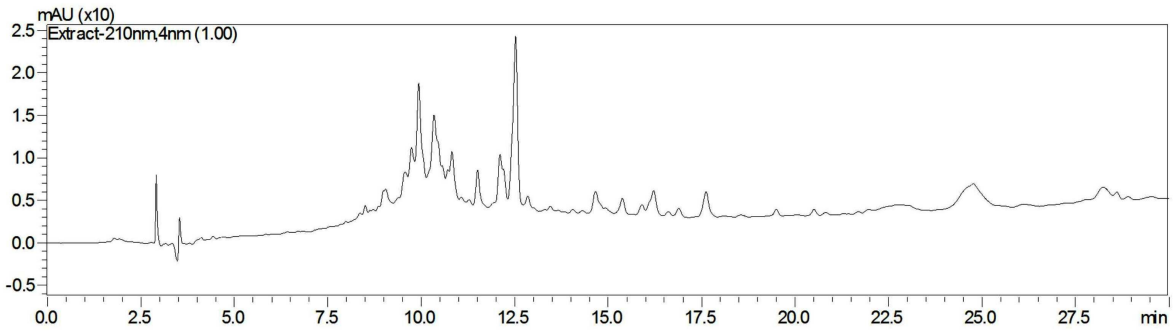


Figure SI-2. HPLC profile of CBS sample.

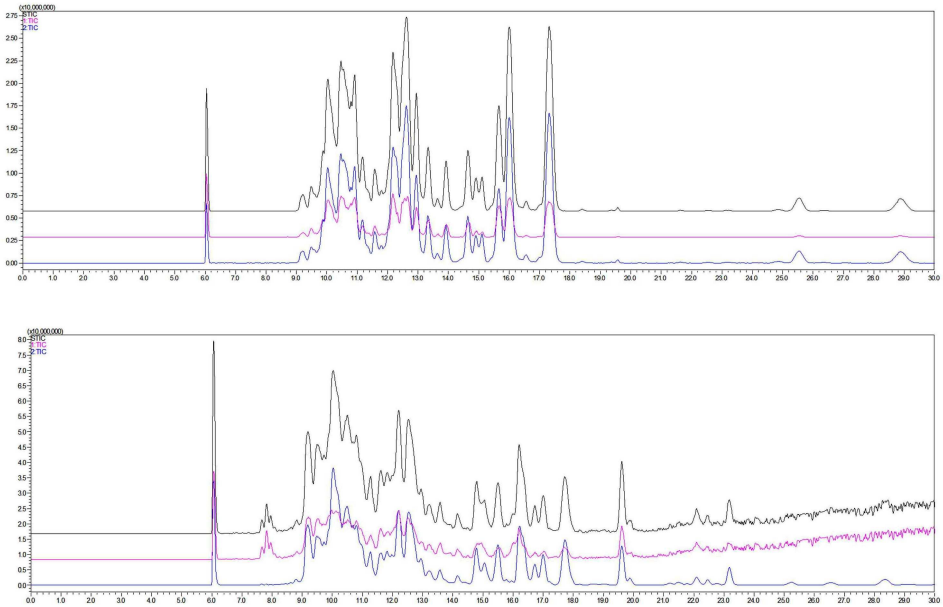
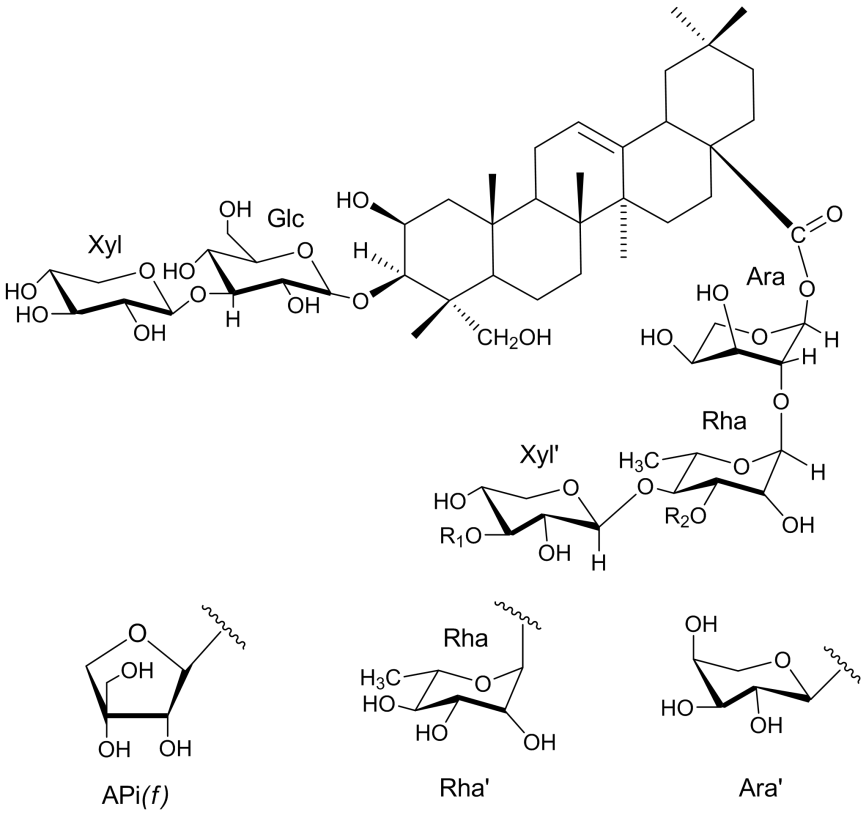


Figure SI-3. Positive and negative mass spectrometic TIC (total ion chromatography) profiles of CBS. The upper one has a m/z range from 1300 to 1700; the lower one has a m/z range from 700 to 1400.

Conyzasaponin	Chemical component
A	3-O-β-D-xylopyranosyl-(1→3)-β-D-glucopyranosyl bayogenine 28-O-β-D-apiofuranosyl-(1→3)-β-D-xylopyranosyl-(1→4)-α-R-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester
B	3-O-β-D-xylopyranosyl-(1→3)-β-D-glucopyranosyl bayogenine 28-O-β-D-apiofuranosyl-(1→3)-β-D-xylopyranosyl-(1→4)-[R-L-arabinopyranosyl-(1→3)]-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester
C	3-O-β-D-xylopyranosyl-(1→3)-β-D-glucopyranosyl bayogenine 28-O-α-L-rhamnopyranosyl-(1→3)-β-D-xylopyranosyl-(1→4)-[β-D-apiofuranosyl-(1→3)]-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester
D	3-O-β-D-xylopyranosyl-(1→3)-β-D-glucopyranosyl polygalacic acid-28-O-β-D-galactopyranosyl-(1→2)-β-D-apiofuranosyl-(1→3)-β-D-xylopyranosyl-(1→4)-[β-D-apiofuranosyl-(1→3)]-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester
E	3-O-β-D-xylopyranosyl-(1→3)-β-D-glucopyranosyl polygalacic acid-28-O-β-D-galactopyranosyl-(1→2)-β-D-apiofuranosyl-(1→3)-β-D-xylopyranosyl-(1→4)-[α-arabinopyranosyl-(1→3)]-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester
F	3-O-β-D-glucopyranosyl polygalacic acid 28-O-β-D-galactopyranosyl-(1→2)-β-D-apiofuranosyl-(1→3)-β-D-xylopyranosyl-(1→4)-[β-D-apiofuranosyl-(1→3)]-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester

H	3-O-β-D-xylopyranosyl-(1→3)-β-D-glucopyranosyl polygalacic acid 28-O-β-D-galactopyranosyl-(1→2)-β-D-apiofuranosyl-(1→3)--β-D-xylopyranosyl-(1→4)-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester
I	3-O-β-D-xylopyranosyl-(1→3)-β-D-glucopyranosyl bayogenin 28-O-α-L-rhamnopyranosyl-(1→3)-β-D-xylopyranosyl-(1→4)-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester
J	3-O-β-D-xylopyranosyl-(1→3)-β-D-glucopyranosyl polygalacic acid 28-O-α-L-rhamnopyranosyl-(1→3)-β-D-xylopyranosyl-(1→4)-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester
K	3-O-β-D-xylopyranosyl-(1→3)-β-D-glucopyranosyl polygalacic acid 28-O-α-L-rhamnopyranosyl-(1→3)-β-D-xylopyranosyl-(1→4)-[β-D-apiofuranosyl-(1→3)]-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester
L	3-O-β-D-xylopyranosyl-(1→3)-β-D-glucopyranosyl polygalacic acid 28-O-α-D-galactopyranosyl-(1→2)-α-L-rhamnopyranosyl-(1→3)-β-D-xylopyranosyl-(1→24)-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester.
M/Q	3-O-β-D-xylopyranosyl-(1→3)-β-D-glucopyranosyl bayogenin 28-O-β-D-apiofuranosyl-(1→3)-β-D-xylopyranosyl-(1→4)-[β-D-apiofuranosyl-(1→3)]-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester.
N	3-O-β-D-glucopyranosyl bayogenin 28-O-β-D-apiofuranosyl-(1→3)-α-D-xylopyranosyl-(1→4)-[β-D-apiofuranosyl-(1→3)]-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester.
O	3-O-β-D-glucopyranosyl-(1→3)-β-D-glucopyranosyl bayogenin 28-O-β-D-apiofuranosyl-(1→3)-β-D-xylopyranosyl-(1→4)-[β-D-apiofuranosyl-(1→3)]-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester
P	3-O-β-D-xylopyranosyl-(1→3)-β-D-glucopyranosyl bayogenin 28-O-β-D-apiofuranosyl-(1→3)-[β-D-xylopyranosyl-(1→4)]-α-L-rhamnopyranosyl-(1→2)-α-L-arabinopyranosyl ester

Table SI-1. Chemical components in CBS.

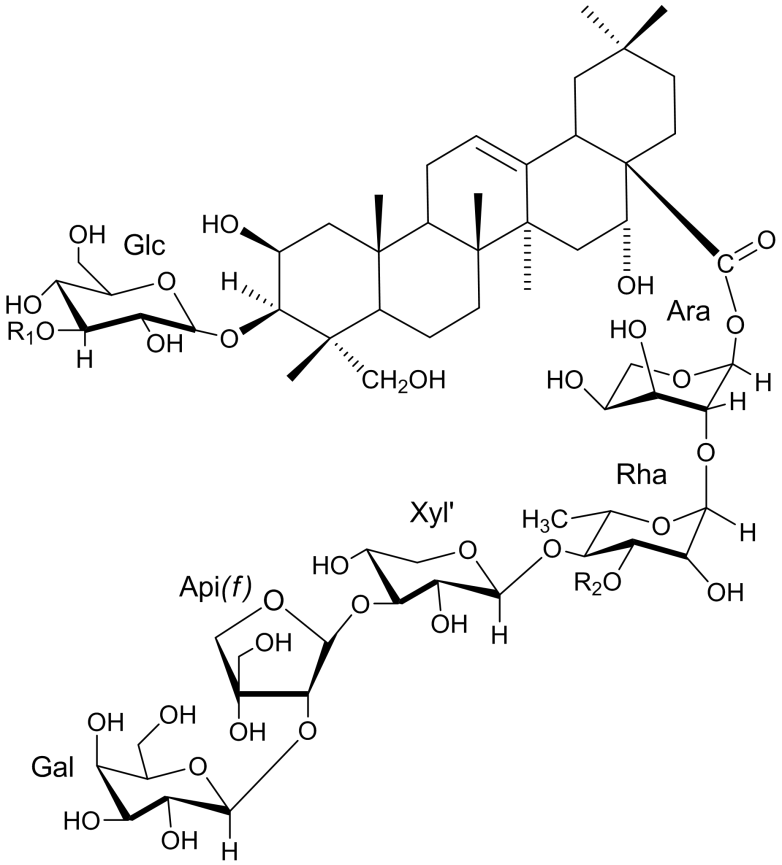


APi*(f)*

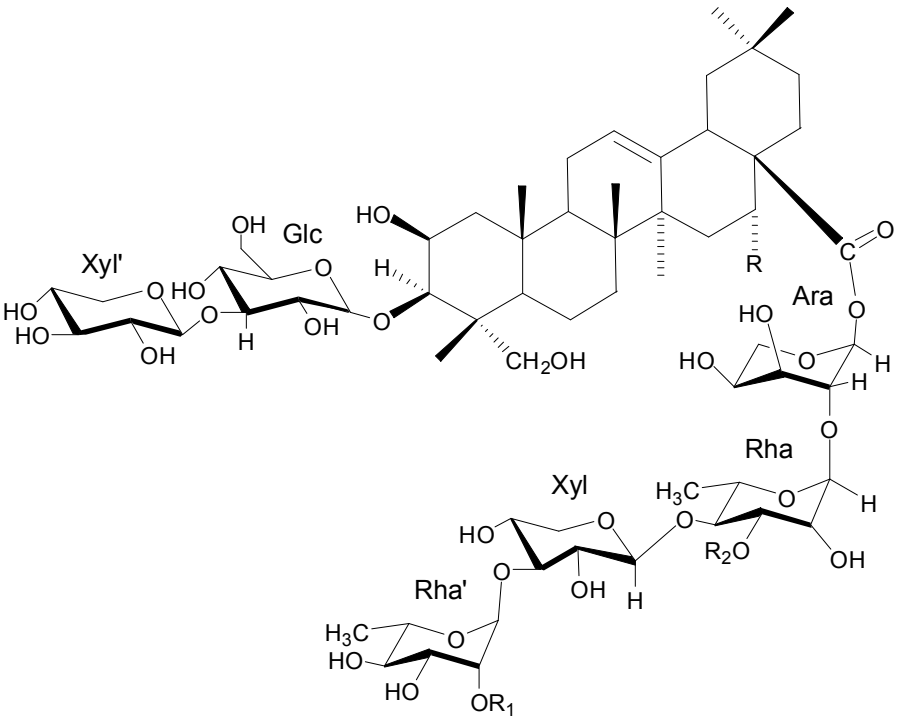
Rha'

Ara'

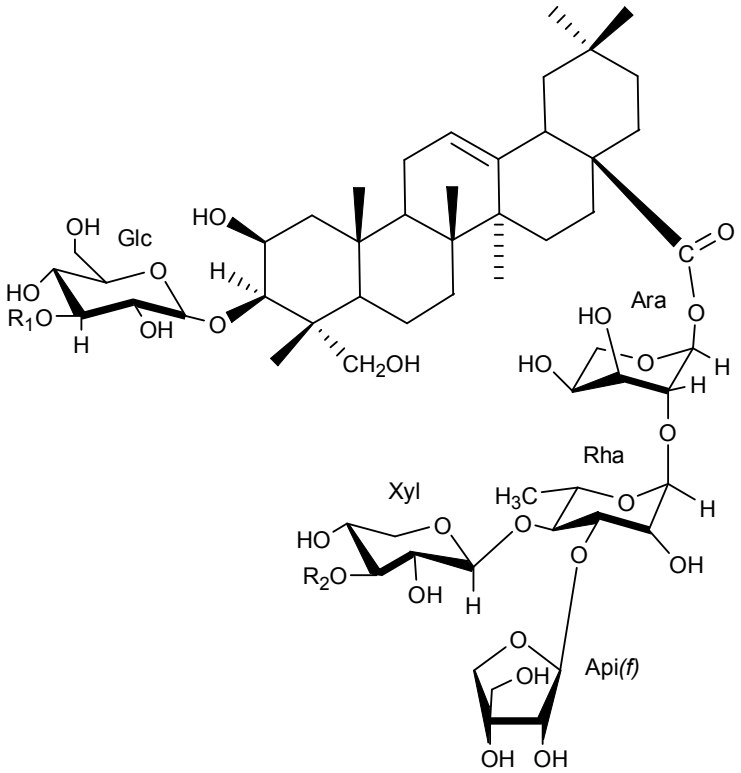
	R_1	R_2
Conyzasaponin A	Api*(f)*	H
Conyzasaponin B	Api*(f)*	Ara’
Conyzasaponin C	Rha’	Api*(f)*



	R_1	R_2
Conyzasaponin D	Xyl	Api*(f)'*
Conyzasaponin E	Xyl	Ara'
Conyzasaponin F	H	Api*(f)'*
Conyzasaponin H	Xyl	H



	R	R_1	R_2
Conyzasaponin I	H	H	H
Conyzasaponin J	OH	H	H
Conyzasaponin K	OH	H	Api*(f)*
Conyzasaponin L	OH	Gal	H



	R_1	R_2
Conyzasaponin M	Xyl’	Api*(f)’*
Conyzasaponin N	H	Api*(f)’*
Conyzasaponin O	Glc’	Api*(f)’*
Conyzasaponin P	Xyl’	H
Conyzasaponin Q	Xyl’	Xyl’’

Figure SI-4. Chemical structures of components in CBS.