

Arenobufagin

Catalog No: tcsc3693



Available Sizes

Size: 5mg

Size: 10mg



Specifications

CAS No:

464-74-4

Formula:

$C_{24}H_{32}O_6$

Pathway:

Others

Target:

Others

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Observed Molecular Weight:

416.51

Product Description

Arenobufagin is a natural bufadienolide from toad venom; has potent antineoplastic activity against HCC HepG2 cells as well as corresponding multidrug-resistant HepG2/ADM cells.

IC50 value:

Target:

in vitro: arenobufagin induced mitochondria-mediated apoptosis in HCC cells, with decreasing mitochondrial potential, as well as increasing Bax/Bcl-2 expression ratio, Bax translocation from cytosol to mitochondria. Arenobufagin also induced autophagy in HepG2/ADM cells. Autophagy-specific inhibitors (3-methyladenine, chloroquine and bafilomycin A1) or Beclin1 and Atg 5 small interfering RNAs (siRNAs) enhanced arenobufagin-induced apoptosis, indicating that arenobufagin-mediated autophagy may protect HepG2/ADM cells from undergoing apoptotic cell death [1]. arenobufagin inhibited vascular endothelial growth factor (VEGF)-induced viability, migration, invasion and tube formation in human umbilical vein endothelial cells (HUVECs) in vitro [2]. Arenobufagin blocked the Na⁺/K⁺ pump current in a dose-dependent manner with a half-maximal concentration of 0.29 microM and a Hill coefficient of 1.1 [3].

in vivo: arenobufagin inhibited the growth of HepG2/ADM xenograft tumors, which were associated with poly (ADP-ribose) polymerase cleavage, light chain 3-II activation and mTOR inhibition [1]. Arenobufagin also suppressed sprouting formation from VEGF-treated aortic rings in an ex vivo model [2].

