**Product Name**: Paederosidic acid

**Catalog Number**: T5739

**CAS Number**: 18842-98-3

**Molecular Formula**: C18H24O12S

**Molecular Weight**: 464.40

**Description**: Paederosidic acid has significant anti-tumor, anticonvulsant and sedative effects. Paederosidic acid increases brain gamma-aminobutyric acid and decreases glutamic acid in the brain, and it up-regulates expressions of GAD 65, may be a promising future therapeutic agent for treatment of epilepsy.

**Storage**: 2 years -80°C in solvent; 3 years -20°C powder;

**Solubility**
(< 1 mg/ml refers to the product slightly soluble or insoluble)

**Receptor (IC50)**
Bcl-2

**In vitro Activity**
Paederosidic acid (PA) showed significant anti-tumor activity on lung cancer in vitro; the mechanisms were involved in inducing mitochondria-mediated apoptosis via up-regulation of caspase-3, caspase-8, caspase-9, Bid, Bax, down-regulation of Bcl-2 and stimulating the release of Cyto-C from mitochondria. JNK phosphorylation levels significantly increased concomitantly with decrease in Akt phosphorylation after treatment with PA in A549 cells. However, JNK siRNA-transfected cells diminished PA-induced caspase-3, 8 and 9, Bid and Bax activation while enhanced the Bcl-2 activation. PA-induced JNK activation played an important functional role in apoptosis[1].

**In vivo Activity**
Anticonvulsant and sedative effects of paederosidic acid isolated from Paederia scandens (Lour.) Merrill. in mice and rats. Paederosidic acid (5, 10, 20, and 40 mg/kg, ip) had significant anticonvulsant and sedative effects. Paederosidic acid increased brain gamma-aminobutyric acid and decreased glutamic acid in the brain, and it up-regulated expressions of GAD 65. Paederosidic acid may be a promising future therapeutic agent for treatment of epilepsy[2].

**Cell Assay**
The anti-proliferative effects of PA on A549 cells were evaluated by MTT method and the IC50 values were calculated. Furthermore, the PA-induced apoptosis in A549 cells was determined by fluorescence microscope via staining with DAPI and by flow cytometer via staining with FITC conjugated Annexin V/PI. The expression of apoptosis-related or signaling proteins was investigated by Western blotting[1]

**Animal Experiment**
Animal Model:

**Reference**

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