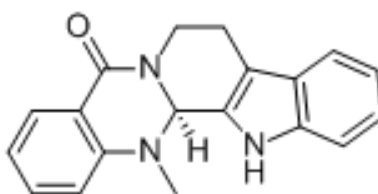


## Evodiamine Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)**[ Product Information ]****Name:** Evodiamine**Catalog No.:** CFN99993**Cas No.:** 518-17-2**Purity:** >=98%**M.F:** C<sub>19</sub>H<sub>17</sub>N<sub>3</sub>O**M.W:** 303.36**Physical Description:** Yellow powder**Synonyms:**(+)-Evodiamine;d-Evodiamine;

Indol(2',3':3,4)pyrido(2,1-b)quinazolin-5(7H)-one,8,13,13b,14-tetrahydro-14-methyl-,(13b S)-; Indol(2',3':3,4)pyrido(2,1-b)quinazolin-5(7H)-one, 8,13,13b,14-tetrahydro-14-methyl-, (S)-;14-methyl-8,13,13b,14-tetrahydroindolo[2',3':3,4]pyrido[2,1-b]quinazolin-5(7H)-one;(1 3bS)-14-methyl-8,13,13b,14-tetrahydroindolo[2',3':3,4]pyrido[2,1-b]quinazolin-5(7H)-one.

**[ Intended Use ]**

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

**[ Source ]**

The fruits of *Evodia rutaecarpa* (Juss.) Benth.

## **[ Biological Activity or Inhibitors ]**

Evodiamine, an alkaloidal component extracted from the fruit of *Evodiae fructus* (*Evodia rutaecarpa* Benth., *Rutaceae*), it inhibits both constitutive and induced NF-kappaB activation and NF-kappaB-regulated gene expression and that this inhibition may provide a molecular basis for the ability of evodiamine to suppress proliferation, induce apoptosis, and inhibit metastasis.<sup>[1]</sup>

Evodiamine, a novel non-pungent vanilloid receptor agonist, mimics the characteristic anti-obese effects induced by capsaicin, it induces heat loss and heat production at the same time and dissipates food energy, prevents the accumulation of perivisceral fat and the body weight increase.<sup>[2]</sup>

Evodiamine has a marked inhibitory effect on IL-1 sensitive human melanoma A375-S2 cells proliferation, and this action might be through inactivation of PI3K signaling; the PI3K/Akt/caspase and Fas-L/NF- $\kappa$  B signaling pathways may account for the responses of A375-S2 cell death induced by evodiamine, and these signals could be augmented by ubiquitin - proteasome pathway. <sup>[3]</sup>

Evodiamine and rutaecarpine have positive inotropic and chronotropic effects on the guinea-pig isolated right atria, possible involvement of vanilloid receptors.<sup>[4]</sup>

Evodiamine has vasodilator effects, block of the Ca<sup>2+</sup> influx through receptor-mediated Ca<sup>2+</sup> channels may be the major mechanism underlying the vasodilator effect of evodiamine..<sup>[5]</sup>

Evodiamine shows the analgesic action by desensitizing sensory nerves.<sup>[6]</sup>

Evodiamine has cytotoxic effect in SGC-7901 human gastric adenocarcinoma cells via simultaneous induction of apoptosis and autophagy.<sup>[7]</sup>

## **[ Solvent ]**

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

## **[ HPLC Method ]<sup>[8]</sup>**

Mobile phase: n-Hexane – 2-Propanol – Ethanol =70:20:10 ;

Flow rate: 0.7 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 225 nm.

## **[ Storage ]**

2-8°C, Protected from air and light, refrigerate or freeze.

## **[ References ]**

- [1] Takada Y, Kobayashi Y, Aggarwal B B. *J. Biol. Chem.*, 2005, 280(17):17203-12.
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- [3] Wang C, Li S, Wang M W. *Toxicol. in Vitro* , 2010, 24(3):898-904.
- [4] Kobayashi Y, Hoshikuma K, Nakano Y, et al. *Planta Med.*, 2001, 67(3):244-8.
- [5] Chiou W F, Chou C J, Shum Y C, et al. *Eur. J. Pharmacol.*, 1992, 215(2-3):277-83.
- [6] Kobayashi Y. *Planta Med.*, 2003, 69(5):425-8.
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- [8] Nguyen N V T, Lee K R, Yong J L, et al. *J. Pharm. Biomed. Anal.*, 2013, 81-82(7):151-9.

## **[ Contact ]**

**Address:**

S5-3 Building, No. 111, Dongfeng Rd.,  
Wuhan Economic and Technological Development Zone,  
Wuhan, Hubei 430056,  
China

**Email:** [info@chemfaces.com](mailto:info@chemfaces.com)

**Tel:** +86-27-84237783

**Fax:** +86-27-84254680

**Web:** [www.chemfaces.com](http://www.chemfaces.com)

**Tech Support:** [service@chemfaces.com](mailto:service@chemfaces.com)