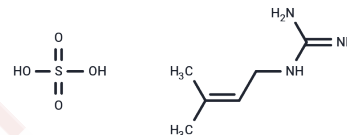


## Galegine hemisulfate

### Chemical Properties

CAS No. : 14279-86-8  
 Formula: C<sub>6</sub>H<sub>15</sub>N<sub>3</sub>O<sub>4</sub>S  
 Molecular Weight: 225.27  
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
*Actual storage temperature shall be subject to the COA.*



### Biological Description

Description	Galegine hemisulfate, a guanidine derivative, aids in weight reduction in mice. It activates AMPK in 3T3-L1 adipocytes, L6 myotubes, H4IIE rat hepatoma cells, and HEK293 human renal cell lines. Galegine hemisulfate also exhibits antibacterial activity, with a minimum inhibitory concentration of 4 mg/L against Staphylococcus aureus strains.
Targets(IC50)	Antibacterial,AMPK
In vitro	Galegine (10 μM-3 mM; 5 hours) hemisulfate pretreatment induces a concentration-dependent stimulation of insulin-independent glucose uptake in 3T3-L1 adipocytes without affecting cell viability. Similarly, incubation of Galegine (1 μM-1 mM, 5 hours) hemisulfate enhances glucose absorption in L6 myotubes in a concentration-dependent manner, also without impacting cell viability. Galegine (0.3-300 μM; 24 hours) hemisulfate slightly reduces basal glycerol release from 3T3-L1 adipocytes, while significantly decreasing isoprenaline-stimulated glycerol release. In H4IIE rat hepatoma cells, Galegine (10 or 300 μM) hemisulfate incubation for up to 6 hours results in time-dependent activation of AMPK, peaking at 360 minutes, with a two-fold activation observed at 24 hours in the presence of 300 μM Galegine hemisulfate, which is significantly more effective than 10 μM. In 3T3L-1 adipocytes and L6 myotubes, a 1-hour incubation with Galegine hemisulfate leads to concentration-dependent AMPK activation. Additionally, Galegine hemisulfate produces concentration-dependent enzyme activation in human kidney cell lines (HEK293).
In vivo	Administering Galegine (63 mg/kg; Feed; once a day, for a total of 11 days) in hemisulfate form significantly reduces body weight.

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	4.4391 mL	22.1956 mL	44.3912 mL
5 mM	0.8878 mL	4.4391 mL	8.8782 mL
10 mM	0.4439 mL	2.2196 mL	4.4391 mL
50 mM	0.0888 mL	0.4439 mL	0.8878 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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