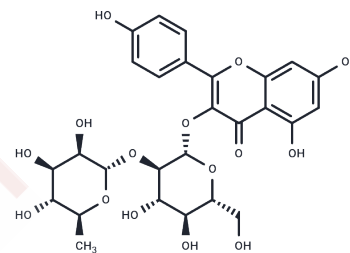


## Kaempferol 3-neohesperidoside

## Chemical Properties

CAS No. :	32602-81-6
Formula:	C <sub>27</sub> H <sub>30</sub> O <sub>15</sub>
Molecular Weight:	594.52
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	Kaempferol 3-neohesperidoside (Kaempferol 3-O-neohesperidoside), a flavonoid compound, exhibits an insulinomimetic effect on the rat soleus muscle.
Targets(IC50)	MEK,GSK-3,IGF-1R,PI3K
In vitro	A stimulatory effect of Kaempferol 3-neohesperidoside ( 1) on glucose uptake (35% and 21%) was observed when the rat soleus muscle was incubated with 1 and 100 nM of this flavonoid glycoside, respectively. The concentration-response curve of insulin showed a stimulatory effect at 3.5 and 7.0 nM (42% and 50%) on glucose uptake when compared with the control group. The effect of Kaempferol 3-neohesperidoside on glucose uptake was completely nullified by pretreatment with LY294002, an inhibitor of phosphoinositide 3-kinase (PI3K), and RO318220, an inhibitor of protein kinase C (PKC). However, no significant change occurred on glucose uptake stimulated by Kaempferol 3-neohesperidoside when muscles were pretreated with PD98059, an inhibitor of mitogen-activated protein kinase (MEK), and cycloheximide, an inhibitor of protein synthesis. Kaempferol 3-neohesperidoside and insulin (7 nM) did not show a synergistic effect on glucose uptake. Additionally, 100 mg/kg of Kaempferol 3-neohesperidoside by oral gavage was able to increase glycogen content in the muscle[1]

## Solubility Information

Solubility	DMSO: 55 mg/mL (92.51 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.36 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.682 mL	8.4101 mL	16.8203 mL
5 mM	0.3364 mL	1.682 mL	3.3641 mL
10 mM	0.1682 mL	0.841 mL	1.682 mL
50 mM	0.0336 mL	0.1682 mL	0.3364 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.

### Reference

Insulinomimetic effect of kaempferol 3-neohesperidoside on the rat soleus muscle. *J Nat Prod.* 2008 Apr;71(4):532-5.

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