Cyanidin Chloride

Cat. No.: HY-N0499

CAS No.: 528-58-5

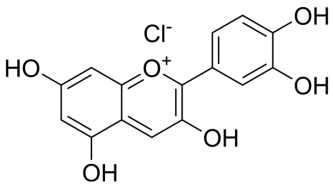
Molecular Formula: $C_{15}H_{11}ClO_6$

Molecular Weight: 322.7

Target: RANKL/RANK

Pathway: NF-κB

Storage: -20°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (77.47 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.0989 mL	15.4943 mL	30.9885 mL
	5 mM	0.6198 mL	3.0989 mL	6.1977 mL
	10 mM	0.3099 mL	1.5494 mL	3.0989 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (7.75 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.75 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Cyanidin Chloride (IdB 1027), a subclass of anthocyanin, displays antioxidant and anti-carcinogenesis properties. Cyanidin Chloride (IdB 1027) inhibits osteoclast formation, hydroxyapatite resorption, and receptor activator of NF-κB ligand (RANKL)-induced osteoclast marker gene expression[1].

In Vitro

Cyanidin Chloride (IdB 1027) inhibits receptor activator of NF-κB ligand (RANKL)-induced NF-κB activation, suppresses the degradation of IκB-α and attenuates the phosphorylation of extracellular signal-regulated kinases (ERK). Cyanidin Chloride (IdB 1027) abrogates RANKL-induced calcium oscillations, the activation of nuclear factor of activated T cells calcineurin-dependent 1 (NFATc1), and the expression of c-Fos[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Cyanidin Chloride (IdB 1027) protects against OVX-induced bone loss in OVX-induced osteoporosis mouse model[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Food Res Int. 2019 May;119:187-195.
- Int Immunopharmacol. 2024 May 28:136:112343.
- Hum Cell. 2021 Oct 11.

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REFERENCES

[1]. Cheng J, et al. Cyanidin Chloride inhibits ovariectomy-induced osteoporosis by suppressing RANKL-mediated osteoclastogenesis and associated signaling pathways. J Cell Physiol. 2018 Mar;233(3):2502-2512.

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