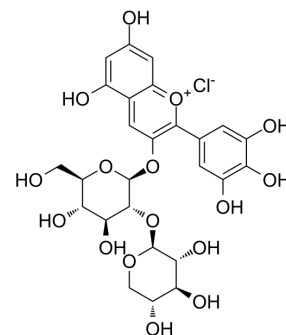


Delphinidin-3-sambubioside chloride

Cat. No.:	HY-129143
CAS No.:	53158-73-9
Molecular Formula:	C ₂₆ H ₂₉ ClO ₁₆
Molecular Weight:	632.95
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Delphinidin-3-sambubioside (Dp3-Sam) chloride is an anthocyanin that has orally active anti-inflammatory activity. Delphinidin-3-sambubioside chloride inhibits LPS-induced inflammatory factors release. Delphinidin-3-sambubioside chloride also alleviates hepatic lipid accumulation in HFD rats. Delphinidin-3-sambubioside chloride can be isolated from <i>Hibiscus sabdariffa</i> L. ^{[1][3]} .								
In Vitro	<p>Delphinidin-3-sambubioside chloride (50-200 μM, 30 min) inhibits LPS-induced iNOS expression in RAW264.7 cells^[1]. Delphinidin-3-sambubioside chloride (50-200 μM, 30 min) suppresses the phosphorylation of ERK1/2 and MEK1/2 in RAW264.7 cells^[1].</p> <p>Delphinidin-3-sambubioside chloride (50-200 μM, 30 min) downregulates NF-κB signaling pathway in RAW264.7 cells^[1]. Delphinidin-3-sambubioside chloride (24 h) inhibits HL-60 cells proliferation by inducing apoptosis, with an IC₅₀ of 75 μM^[2]. Delphinidin-3-sambubioside chloride (100-200 μg/mL, 24 h) decreases intracellular TG levels and lipid accumulation in oleic acid-treated HepG2 cells^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[1]</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Cell Line:</td> <td>RAW264.7 cells</td> </tr> <tr> <td>Concentration:</td> <td>50, 100, 200 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>30 min</td> </tr> <tr> <td>Result:</td> <td>Suppressed the degradation of IκB, and the phosphorylation of p65.</td> </tr> </table>	Cell Line:	RAW264.7 cells	Concentration:	50, 100, 200 μM	Incubation Time:	30 min	Result:	Suppressed the degradation of IκB, and the phosphorylation of p65.
Cell Line:	RAW264.7 cells								
Concentration:	50, 100, 200 μM								
Incubation Time:	30 min								
Result:	Suppressed the degradation of IκB, and the phosphorylation of p65.								
In Vivo	<p>Delphinidin-3-sambubioside chloride (15 μmol/kg, i.p.) inhibits mouse paw edema induced by LPS^[1]. Delphinidin-3-sambubioside chloride (30 mg/kg body, oral gavage, daily for eight weeks) decreases lipid accumulation in HFD rats^[3].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Animal Model:</td> <td>Delphinidin-3-sambubioside chloride (15 μmol/kg, i.p.) vs LPS vs HFD vs HFD + Delphinidin-3-sambubioside chloride^[1]. Delphinidin-3-sambubioside chloride (30 mg/kg body) vs HFD vs HFD + Delphinidin-3-sambubioside chloride^[3]</td> </tr> <tr> <td>Dosage:</td> <td>15 μmol/kg</td> </tr> </table>	Animal Model:	Delphinidin-3-sambubioside chloride (15 μmol/kg, i.p.) vs LPS vs HFD vs HFD + Delphinidin-3-sambubioside chloride ^[1] . Delphinidin-3-sambubioside chloride (30 mg/kg body) vs HFD vs HFD + Delphinidin-3-sambubioside chloride ^[3]	Dosage:	15 μmol/kg				
Animal Model:	Delphinidin-3-sambubioside chloride (15 μmol/kg, i.p.) vs LPS vs HFD vs HFD + Delphinidin-3-sambubioside chloride ^[1] . Delphinidin-3-sambubioside chloride (30 mg/kg body) vs HFD vs HFD + Delphinidin-3-sambubioside chloride ^[3]								
Dosage:	15 μmol/kg								

Administration:	Intraperitoneal injection (i.p.), for 4 days.
Result:	Reduced the LPS-induced paw thickness. Decreased the edema by 89.3%. Decreased the levels of LPS induced serum IL-6, MCP-1 and TNF- α .
Animal Model:	HFD-fed rats ^[3]
Dosage:	30 mg/kg
Administration:	Oral gavage, daily for eight weeks.
Result:	Reduced the body weight gain, visceral fat, and abdominal fat and decreased hepatic lipid deposits.

REFERENCES

- [1]. Sogo T, et al. Anti-inflammatory activity and molecular mechanism of delphinidin 3-sambubioside, a Hibiscus anthocyanin. *Biofactors*. 2015 Jan-Feb;41(1):58-65.
- [2]. Hou DX, et al. Delphinidin 3-sambubioside, a Hibiscus anthocyanin, induces apoptosis in human leukemia cells through reactive oxygen species-mediated mitochondrial pathway. *Arch Biochem Biophys*. 2005 Aug 1;440(1):101-9.
- [3]. Long Q, et al. Delphinidin-3-sambubioside from Hibiscus sabdariffa. L attenuates hyperlipidemia in high fat diet-induced obese rats and oleic acid-induced steatosis in HepG2 cells. *Bioengineered*. 2021 Dec;12(1):3837-3849. <https://pubmed.ncbi.nlm.nih.gov/34281481/>

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA