Nothofagin

Cat. No.: HY-113919

CAS No.: 11023-94-2

Molecular Formula: $C_{21}H_{24}O_{10}$

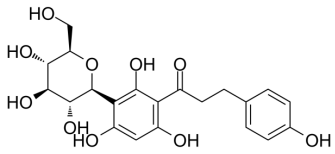
Molecular Weight: 436.41

Target: Calcium Channel

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



BIOLOGICAL ACTIVITY

Description

Nothofagin, a dihydrochalcone, is isolated from rooibos (Aspalathus linearis)[1]. Nothofagin downregulates NF-κB translocation through blocking calcium influx. Nothofagin has antioxidant activity and ameliorates various inflammatory responses such as the septic response and vascular inflammation[2].

In Vitro

Nothofagin pre-treatment (0.1, 1, 10 μM) decreases the level of histamine release in RBL-2H3 and RPMCs cells. The production of cytokines are downregulated bynothofagin pre-treatment Nothofagin (TNF-α: 1-10 μM; IL-4: 0.1-10 μM, IL-6: 1-10 μM)[1].

Pre-treatment of DNPHSA-stimulated RBL-2H3 with Nothofagin (10 μM) markedly suppresses the phosphorylation of Lyn, Syk, and Akt[1].

Nothofagin (30 μM; for 6 hours) results in inhibited formation of LPS-induced (100 ng/mL; 4 hours) paracellular gaps with the formation of dense F-actin rings in HUVECs[2].

Nothofagin suppresses IgE-mediated mast cell degranulation both in vitro and in vivo[1].

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

In Vivo

Nothofagin (1 mg/kg; orally; once a day; for 7 days) significantly increases the urinary volume of both normotensive (NTR) and spontaneously hypertensive rats (SHR)[3].

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Animal Model:	Male Wistar normotensive and spontaneously hypertensive rats (3-4 months old) [3]
Dosage:	1 mg/kg
Administration:	Orally; once a day; for 7 days
Result:	Significantly increased the urinary volume of both NTR and SHR.

REFERENCES

[1]. Wonhwa Lee, et al. Anti-inflammatory Effects of Aspalathin and Nothofagin From Rooibos (Aspalathus Linearis) In Vitro and In Vivo. Inflammation. 2015 Aug;38(4):1502-16.

[2]. Byeong-Cheol Kang, et al. Nothofagin Suppresses Mast Cell-Mediated Allergic Inflammation. Chem Biol Interact. 2019 Jan 25;298:1-7.

[3]. Camila Leandra Bueno de Almeida, et al. Prolonged Diuretic and Saluretic Effect of Nothofagin Isolated From Leandra Dasytricha (A. Gray) Cogn. Leaves in Normotensive and Hypertensive Rats: Role of Antioxidant System and Renal Protection. Chem Biol Interac

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