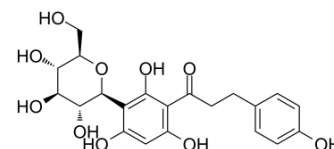


## Nothofagin

<b>Cat. No.:</b>	HY-113919
<b>CAS No.:</b>	11023-94-2
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>24</sub> O <sub>10</sub>
<b>Molecular Weight:</b>	436.41
<b>Target:</b>	Calcium Channel
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling
<b>Storage:</b>	Please store the product under the recommended conditions in the COA.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Nothofagin, a dihydrochalcone, is isolated from rooibos ( <i>Aspalathus linearis</i> ) <sup>[1]</sup> . Nothofagin downregulates NF-κB translocation through blocking <b>calcium</b> influx. Nothofagin has antioxidant activity and ameliorates various inflammatory responses such as the septic response and vascular inflammation <sup>[2]</sup> .								
<b>In Vitro</b>	<p>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 by nothofagin pre-treatment Nothofagin (TNF-α: 1-10 μM; IL-4: 0.1-10 μM, IL-6: 1-10 μM)<sup>[1]</sup>.</p> <p>Pre-treatment of DNPHSA-stimulated RBL-2H3 with Nothofagin (10 μM) markedly suppresses the phosphorylation of Lyn, Syk, and Akt<sup>[1]</sup>.</p> <p>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<sup>[2]</sup>.</p> <p>Nothofagin suppresses IgE-mediated mast cell degranulation both in vitro and in vivo<sup>[1]</sup>.</p>								
<b>In Vivo</b>	<p>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)<sup>[3]</sup>.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: none;"><b>Animal Model:</b></td> <td style="border: none;">Male Wistar normotensive and spontaneously hypertensive rats (3-4 months old) <sup>[3]</sup></td> </tr> <tr> <td style="border: none;"><b>Dosage:</b></td> <td style="border: none;">1 mg/kg</td> </tr> <tr> <td style="border: none;"><b>Administration:</b></td> <td style="border: none;">Orally; once a day; for 7 days</td> </tr> <tr> <td style="border: none;"><b>Result:</b></td> <td style="border: none;">Significantly increased the urinary volume of both NTR and SHR.</td> </tr> </table>	<b>Animal Model:</b>	Male Wistar normotensive and spontaneously hypertensive rats (3-4 months old) <sup>[3]</sup>	<b>Dosage:</b>	1 mg/kg	<b>Administration:</b>	Orally; once a day; for 7 days	<b>Result:</b>	Significantly increased the urinary volume of both NTR and SHR.
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### 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.

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[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 Interact. 2018 Jan 5;279:227-233.

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**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](mailto:tech@MedChemExpress.com)

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