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## Product Data Sheet

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Product Name: Nothofagin

Cat. No.: GC61139

**Chemical Properties**

Cas. No. 11023-94-2

SMILES OC1=C([C@@H]([C@@H]([C@H]2O)O)O[C@@H]([C@H]2O)CO)C(O)=CC(O)=C1C(CCC(C=C3)=CC=C3O)=O

Formula	C <sub>21</sub> H <sub>24</sub> O <sub>10</sub>	M.Wt	436.41
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Solubility	Storage	Store at -20°C
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General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

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].

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)[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].

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].

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

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Animal Model: Male Wistar normotensive and spontaneously hypertensive rats (3-4 months old) [3]

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

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