

## Product Data Sheet

Product Name: Altenusin

Cat. No.: GC40024

### Chemical Properties

Cas. No. 31186-12-6

Chemical Name 3,4',5'-trihydroxy-5-methoxy-2'-methyl-[1,1'-biphenyl]-2-carboxylic acid

SMILES COC1=CC(C2=C(C)C=C(O)C(O)=C2)=C(C(O)=O)C(O)=C1

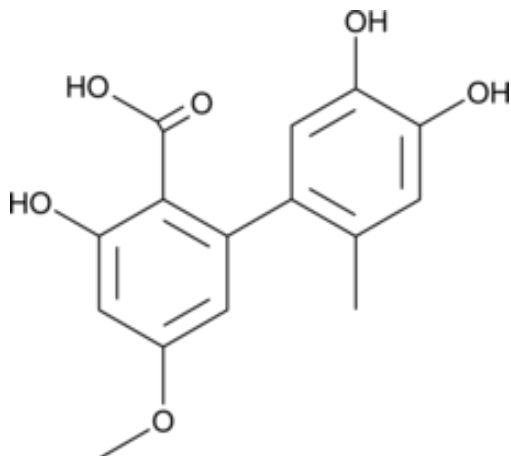
Formula C<sub>15</sub>H<sub>14</sub>O<sub>6</sub> M.Wt 290.3

Solubility DMSO: soluble, Ethanol: soluble, Methanol: soluble Storage Store at -20°C

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 sizes: ship with RT, or blue ice upon request.

Structure



### Background

Altenusin is a polyphenol fungal metabolite originally isolated from the fungus *Alternaria* that has diverse biological activities.[1][2] It inhibits Src kinase with an IC<sub>50</sub> value of 20 nM.[3] Altenusin inhibits fibrillization of recombinant tau fragments in vitro and phosphorylation of tau in SH-SY5Y cells expressing human P301L mutant tau when used at a concentration of 10 μM. [1] It is an agonist of

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

## Product Data Sheet

---

the farnesoid X receptor (FXR; EC<sub>50</sub> = 3.2  $\mu$ M) that reduces blood glucose, serum insulin, and serum cholesterol levels, as well as hepatic lipogenic gene expression and steatosis, in a high fat diet-induced mouse model of obesity when administered at 30 mg/kg per day. Altenusin also has antioxidant and antifungal properties.

### Reference:

- [1]. Chua, S.W., Cornejo, A., van Eersel, J., et al. The polyphenol altenusin inhibits in vitro fibrillization of tau and reduces induced tau pathology in primary neurons. *ACS Chem. Neurosci.* 8(4), 743-751 (2017).
- [2]. Zheng, Z., Zhao, Z., Li, S., et al. Altenusin, a nonsteroidal microbial metabolite, attenuates nonalcoholic fatty liver disease by activating the farnesoid X receptor. *Mol. Pharmacol.* 92(4), 425-436 (2017).
- [3]. Oyama, M., Xu, Z., Lee, K.-H., et al. Fungal metabolites as potent protein kinase inhibitors: Identification of a novel metabolite and novel activities of known metabolites. *Lett. Drug. Des. Discov.* 100(1), 24-29 (2004).

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: [tech@glpbio.com](mailto:tech@glpbio.com)

Address: 10292 Central Ave. #205, Montclair, CA, USA