

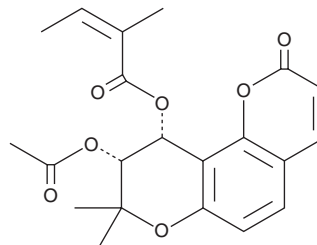
# PRODUCT INFORMATION



## Pteryxin

Item No. 30320

**CAS Registry No.:** 13161-75-6  
**Formal Name:** (2Z)-2-methyl-2-butenoic acid, (9R,10R)-9-(acetyloxy)-9,10-dihydro-8,8-dimethyl-2-oxo-2H,8H-benzo[1,2-b:3,4-b']dipyran-10-yl ester  
**Synonyms:** (+)-Pteryxin, Pterixin, Pteryxine  
**MF:** C<sub>21</sub>H<sub>22</sub>O<sub>7</sub>  
**FW:** 386.4  
**Purity:** ≥98%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years  
**Item Origin:** Plant/*Peucedanum praeruptorum* Dunn



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Pteryxin is supplied as a crystalline solid. A stock solution may be made by dissolving the pteryxin in the solvent of choice, which should be purged with an inert gas. Pteryxin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of pteryxin in these solvents is approximately 30 mg/ml.

### Description

Pteryxin is a coumarin that has been found in *A. furcijuga* and has diverse biological activities.<sup>1-4</sup> It inhibits LPS-induced nitric oxide production in mouse peritoneal macrophages (IC<sub>50</sub> = 20 μM).<sup>1</sup> Pteryxin (100 μg/ml) completely inhibits collagen-induced aggregation of isolated rabbit platelets.<sup>2</sup> It inhibits butyrylcholinesterase (BChE; IC<sub>50</sub> = 12.96 μg/ml).<sup>3</sup> Pteryxin reduces triacylglycerol levels and expression of the genes encoding sterol regulatory element binding protein 1c (SREBP-1c), fatty acid synthase (FASN), and acetyl-coenzyme A carboxylase 1 (ACC1) in 3T3-L1 adipocytes and HepG2 cells.<sup>4</sup>

### References

1. Matsuda, H., Murakami, T., Kageura, T., *et al.* Hepatoprotective and nitric oxide production inhibitory activities of coumarin and polyacetylene constituents from the roots of *Angelica furcijuga*. *Bioorg. Med. Chem. Lett.* **8(16)**, 2191-2196 (1998).
2. Chen, I.-S., Chang, C.-T., Sheen, W.-S., *et al.* Coumarins and antiplatelet aggregation constituents from formosan *Peucedanum japonicum*. *Phytochemistry* **41(2)**, 525-530 (1996).
3. Orhan, I.E., Senol, F.S., Shekfeh, S., *et al.* Pteryxin - A promising butyrylcholinesterase-inhibiting coumarin derivative from *Mutellina purpurea*. *Food Chem. Toxicol.* **109(Pt 2)**, 970-974 (2017).
4. Nugara, R.N., Inafuku, M., Takara, K., *et al.* Pteryxin: A coumarin in *Peucedanum japonicum* Thunb leaves exerts antiobesity activity through modulation of adipogenic gene network. *Nutrition* **30(10)**, 1177-1184 (2014).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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