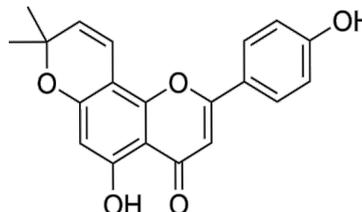


Data Sheet

WWW.UREIKO-CHEM.COM

Global Supplier of Chemical Probes, Inhibitors & Agonists

| | |
|--------------------------|---|
| Product Name | :Limonianin (Synonyms: Atalantoflavone) |
| Cat.No. | :URK-V2508 |
| CAS No. | :119309-02-3 |
| Molecular Weight | :336.34 |
| Molecular Formula | :C ₂₀ H ₁₆ O ₅ |
| Target | : |
| Solubility | : |



Biological Activity

Limonianin inhibit the activation of NF-κB, a transcription factor that promotes the expression of various inflammatory and tumor-promoting genes. It achieves this by preventing the phosphorylation of IκBα, which is required for the degradation of the inhibitor of NF-κB. This results in the accumulation of IκBα, inhibiting the translocation of NF-κB to the nucleus and the subsequent gene expression.

Limonianin has been shown to inhibit the activity of the enzyme 5-lipoxygenase (5-LOX), which is responsible for the production of leukotrienes, potent inflammatory mediators. It achieves this by directly binding to the active site of 5-LOX, preventing the conversion of arachidonic acid to leukotrienes. In addition, limonianin has been reported to inhibit the expression of cyclooxygenase-2 (COX-2), another enzyme involved in the production of inflammatory mediators, by blocking the activation of NF-κB.

References

1. Liang YR, Huang YL, Tsai SH, Lin-Shiau SY, Chen CF, Lin JK. Suppression of inducible cyclooxygenase and inducible nitric oxide synthase by apigenin and related flavonoids in mouse macrophages. *Carcinogenesis*. 1999;20(10):1945-1952.
2. Guo J, Wang CF. Limonianin of citrus fruit as a potential therapeutic agent: a comprehensive review. *Expert Opin Ther Targets*. 2020;24(1):1-17.
3. Ghosh J, Das J, Manna P, Sil PC. Taurine protects rat testes against NaAsO₂-induced oxidative stress and apoptosis via mitochondrial dependent and independent pathways. *Toxicol Appl Pharmacol*. 2009;240(1):397-414.
4. Wu Y, Zheng J, Liu J, Deng X, Bai M, Liu T, Wu Z, Li Y. Limonianin suppresses inflammatory responses by blocking the NF-kappa B signaling pathway in lipopolysaccharide-induced RAW 264.7 macrophages. *J Agric Food Chem*. 2016;64(46):8850-8857.

Note: All products of Ureiko are only used for scientific research or drug certificate declaration, we do not provide products and services for any personal use!

Caution: Product has not been fully validated for medical applications. Lab Use Only!

JACK@UREIKO-CHEM.COM