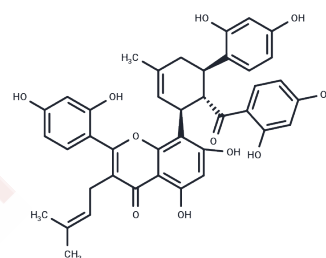


kuwanon G

Chemical Properties

| | |
|-------------------|--|
| CAS No. : | 75629-19-5 |
| Formula: | C40H36O11 |
| Molecular Weight: | 692.71 |
| Storage: | Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small> |



Biological Description

| | |
|---------------|--|
| Description | 1. Kuwanon G (Moracenin B) as dual inhibitors of PTP1B and α -glucosidase enzymes, as well as insulin sensitizers, it may potentially be utilized as an effective treatment for Type II diabetes mellitus. 2. Kuwanon G has anti-inflammatory activity, it can attenuate atherosclerosis through inhibiting foam cell formation and inflammatory response. 3. Kuwanon G is a potent inhibitor of Mycobacterium tuberculosis protein tyrosine phosphatase B. 4. Kuwanon G shows acetylcholinesterase (AChE) and butyrylcholinesterase (BChE) inhibitory activities, it may be a promising candidate for preventive and therapeutic agents for Alzheimer's disease. 5. Kuwanon G prevents the pathological progression of allergic asthma through the inhibition of lung destruction by inflammation and immune stimulation. 6. Kuwanon G has antibacterial activity against oral pathogens. 7. Kuwanon G is a specific antagonist for the GRP-preferring receptor and can be useful for studying the physiological and pathological role of GRP. |
| Targets(IC50) | Apoptosis, MMP, NF- κ B, Akt, Antibacterial, Bombesin Receptor, AChR, Glucosidase, Cholinesterase (ChE), GSK-3, Liver X Receptor, mTOR, Phosphatase, PI3K, ROS |

Solubility Information

| | |
|------------|--|
| Solubility | Chloroform, Dichloromethane, Ethyl Acetate, Acetone, etc.: Soluble, DMSO: 117.5 mg/mL (169.62 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|--|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|-----------|------------|
| 1 mM | 1.4436 mL | 7.218 mL | 14.4361 mL |
| 5 mM | 0.2887 mL | 1.4436 mL | 2.8872 mL |
| 10 mM | 0.1444 mL | 0.7218 mL | 1.4436 mL |
| 50 mM | 0.0289 mL | 0.1444 mL | 0.2887 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Paudel P, Yu T, Seong SH, et al. Protein Tyrosine Phosphatase 1B Inhibition and Glucose Uptake Potentials of Mulberrofuran G, Albanol B, and Kuwanon G from Root Bark of Morus alba L. in Insulin-Resistant HepG2 Cells: An In Vitro and In Silico Study[J]. International Journal of Molecular Sciences, 2018, 19(5):1542-.

Zhang H, Liang B, Sang X, et al. Discovery of Potential Inhibitors of SARS-CoV-2 Main Protease by a Transfer Learning Method. Viruses. 2023, 15(4): 891.

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