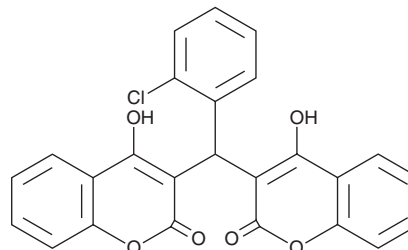


PRODUCT INFORMATION

3,3'-((2-Chlorophenyl)methylene)bis(4-hydroxy-2H-chromen-2-one) Item No. 29864

CAS Registry No.: 4322-58-1
Formal Name: 3,3'-[(2-chlorophenyl)methylene]bis[4-hydroxy-2H-1-benzopyran-2-one]
MF: C₂₅H₁₅ClO₆
FW: 446.8
Purity: ≥98%
UV/Vis.: λ_{max}: 288, 310 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

3,3'-((2-Chlorophenyl)methylene)bis(4-hydroxy-2H-chromen-2-one) is supplied as a crystalline solid. A stock solution may be made by dissolving the 3,3'-((2-chlorophenyl)methylene)bis(4-hydroxy-2H-chromen-2-one) in the solvent of choice, which should be purged with an inert gas. 3,3'-((2-Chlorophenyl)methylene)bis(4-hydroxy-2H-chromen-2-one) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 3,3'-((2-chlorophenyl)methylene)bis(4-hydroxy-2H-chromen-2-one) in these solvents is approximately 30 mg/ml.

3,3'-((2-Chlorophenyl)methylene)bis(4-hydroxy-2H-chromen-2-one) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 3,3'-((2-chlorophenyl)methylene)bis(4-hydroxy-2H-chromen-2-one) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 3,3'-((2-Chlorophenyl)methylene)bis(4-hydroxy-2H-chromen-2-one) has a solubility of approximately 0.14 mg/ml in a 1:7 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

3,3'-((2-Chlorophenyl)methylene)bis(4-hydroxy-2H-chromen-2-one) is a non-nucleotide inhibitor of ectonucleotide pyrophosphatase/phosphodiesterase 1 (ENPP1; K_i = 50 μM).^{1,2} It also inhibits urease (IC₅₀ = 84.53 μM for the Jack bean enzyme).³

References

1. Choudhary, M.I., Fatima, N., Khan, K.M., *et al.* New biscoumarin derivatives-cytotoxicity and enzyme inhibitory activities. *Bioorg. Med. Chem.* **14(23)**, 8066-8072 (2006).
2. Onyedibe, K.I., Wang, M., and Sintim, H.O. ENPP1, an old enzyme with new functions, and small molecule inhibitors - A STING in the tale of ENPP1. *Molecules* **24(22)**, E4192 (2019).
3. Khan, K.M., Iqbal, S., Lodhi, M.A., *et al.* Biscoumarin: New class of urease inhibitors; economical synthesis and activity. *Bioorg. Med. Chem.* **12(8)**, 1963-1968 (2004).

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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