

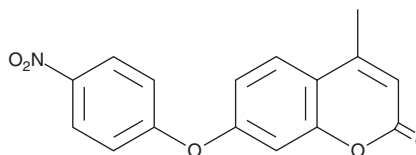
# PRODUCT INFORMATION



## 4-Methyl-7-(4-nitrophenoxy)-2H-chromen-2-one

Item No. 28474

CAS Registry No.: 1644277-00-8  
Formal Name: 4-methyl-7-(4-nitrophenoxy)-2H-1-benzopyran-2-one  
MF:  $C_{16}H_{11}NO_5$   
FW: 297.3  
Purity:  $\geq 98\%$   
UV/Vis.:  $\lambda_{max}$ : 317 nm  
Ex./Em. Max: 323/445 nm  
Supplied as: A crystalline solid  
Storage:  $-20^{\circ}C$   
Stability:  $\geq 4$  years



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

### Laboratory Procedures

4-Methyl-7-(4-nitrophenoxy)-2H-chromen-2-one is supplied as a crystalline solid. A stock solution may be made by dissolving the 4-methyl-7-(4-nitrophenoxy)-2H-chromen-2-one in the solvent of choice, which should be purged with an inert gas. 4-Methyl-7-(4-nitrophenoxy)-2H-chromen-2-one is soluble in organic solvents such as chloroform, DMSO, and dimethyl formamide (DMF). The solubility of 4-methyl-7-(4-nitrophenoxy)-2H-chromen-2-one in chloroform and DMF is approximately 30 mg/ml and approximately 5 mg/ml in DMSO.

4-Methyl-7-(4-nitrophenoxy)-2H-chromen-2-one is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 4-methyl-7-(4-nitrophenoxy)-2H-chromen-2-one should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 4-Methyl-7-(4-nitrophenoxy)-2H-chromen-2-one has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

4-Methyl-7-(4-nitrophenoxy)-2H-chromen-2-one is a fluorescent coumarin derivative.<sup>1,2</sup> It displays excitation/emission maxima of 323/445 nm, respectively.<sup>1</sup> Unlike the hydrogen sulfide probe 7-(2,4-dinitrophenoxy)-4-methyl-2H-chromen-2-one (Item No. 28472), 4-methyl-7-(4-nitrophenoxy)-2H-chromen-2-one does not undergo an increase in fluorescence intensity in the presence of sulfur-containing molecules.<sup>1,2</sup>

### References

1. Zhang, B., Ge, C., Yao, J., *et al.* Selective selenol fluorescent probes: Design, synthesis, structural determinants, and biological applications. *J. Am. Chem. Soc.* **137**(2), 757-769 (2015).
2. Chen, Y., Shang, X., Li, C., *et al.* The synthesis, crystal, hydrogen sulfide detection and cell assessment of novel chemosensors based on coumarin derivatives. *Sci. Rep.* **8**(1), 16159 (2018).

#### 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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