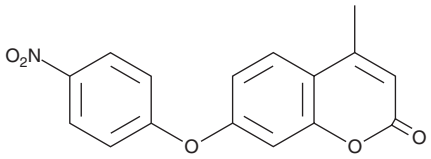
PRODUCT INFORMATION

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:	≥98%
UV/Vis.:	λ_{max}: 317 nm
Ex./Em. Max:	323/445 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

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.[1,2] It displays excitation/emission maxima of 323/445 nm, respectively.[1] 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 fluoresence intensity in the presence of sulfur-containing molecules.[1,2]

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 assement of novel chemsensors based on coumarin derivatives. *Sci. Rep.* **8(1)**, 16159 (2018).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM