

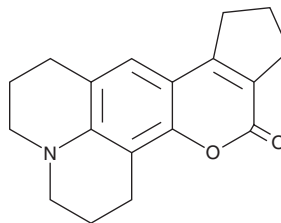
PRODUCT INFORMATION



Coumarin 478

Item No. 40754

CAS Registry No.: 41175-45-5
Formal Name: 2,3,6,7,10,11-hexahydro-1H,5H-cyclopenta[3,4][1]benzopyrano[6,7,8-ij]quinolizin-12(9H)-one
Synonyms: Coumarin 106, NSC 290434
MF: C₁₈H₁₉NO₂
FW: 281.4
Purity: ≥98%
Supplied as: A 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

Coumarin 478 is supplied as a solid. A stock solution may be made by dissolving the coumarin 478 in the solvent of choice, which should be purged with an inert gas. Coumarin 478 is slightly soluble (0.1-1 mg/ml) in DMSO.

Description

Coumarin 478 is a synthetic coumarin.¹ It is an inhibitor of acetylcholinesterase (AChE) and butyrylcholinesterase (BChE; IC₅₀s = 10.7 and 27.8 μM, respectively). Coumarin 478 displays absorption/emission maxima of 386/478 nm, respectively.² It also displays a phosphorescence maximum of approximately 530 nm when applied to polyvinyl alcohol films and excited at 365 nm.³

References

1. Fallarero, A., Oinonen, P., Gupta, S., *et al.* Inhibition of acetylcholinesterase by coumarins: The case of coumarin 106. *Pharmacol. Res.* **58**(3-4), 215-221 (2008).
2. Reynolds, G.A. and Drexhage, K.H. New coumarin dyes with rigidized structure for flashlamp-pumped dye lasers. *Opt. Commun.* **13**(3), 222-225 (1975).
3. Alexander, E., Chavez, J., Ceresa, L., *et al.* Room temperature phosphorescence of coumarin 106 with direct triplet state excitation. *Dyes Pigments* **217**, 111389 (2023).

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.

WARRANTY AND LIMITATION OF REMEDY

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