

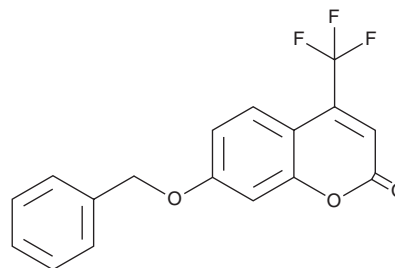
PRODUCT INFORMATION



7-Benzyloxy-4-(trifluoromethyl)coumarin

Item No. 35721

CAS Registry No.: 220001-53-6
Formal Name: 7-(phenylmethoxy)-4-(trifluoromethyl)-
2H-1-benzopyran-2-one
Synonym: BFC
MF: C₁₇H₁₁F₃O₃
FW: 320.3
Purity: ≥95%
Ex./Em. Max: 410/510 nm
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

7-Benzyloxy-4-(trifluoromethyl)coumarin (BFC) is supplied as a solid. A stock solution may be made by dissolving the BFC in the solvent of choice, which should be purged with an inert gas. BFC is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of BFC in these solvents is approximately 1 and 3 mg/ml, respectively.

Description

BFC is a fluorogenic substrate for the cytochrome P450 (CYP) isoforms CYP1A2 and CYP3A.^{1,2} Upon enzymatic cleavage by CYP1A2 or CYP3A, 7-hydroxy-4-(trifluoromethyl)coumarin (HFC) is released and its fluorescence can be used to quantify CYP1A2 and CYP3A activity. HFC displays excitation/emission maxima of 410/510 nm, respectively.

References

1. Renwick, A.B., Surry, D., Price, R.J., *et al.* Metabolism of 7-benzyloxy-4-trifluoromethyl-coumarin by human hepatic cytochrome P450 isoforms. *Xenobiotica* **30(10)**, 955-969 (2000).
2. Ducharme, J., Sevrioukova, I.F., Thibodeaux, C.J., *et al.* Structural dynamics of cytochrome P450 3A4 in the presence of substrates and cytochrome P450 reductase. *Biochemistry* **60(28)**, 2259-2271 (2021).

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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