

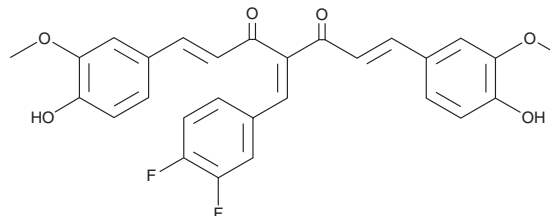
# PRODUCT INFORMATION



## 4-(3,4-Difluorobenzo)curcumin

Item No. 39271

CAS Registry No.: 1170354-22-9  
Formal Name: (1E,6E)-4-[(3,4-difluorophenyl)methylene]-1,7-bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione  
Synonym: CDF  
MF:  $C_{28}H_{22}F_2O_6$   
FW: 492.5  
Purity:  $\geq 95\%$   
UV/Vis.:  $\lambda_{max}$ : 369 nm  
Supplied as: A solid  
Storage:  $-20^{\circ}\text{C}$   
Stability:  $\geq 4$  years



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

### Laboratory Procedures

4-(3,4-Difluorobenzo)curcumin (CDF) is supplied as a solid. A stock solution may be made by dissolving the CDF in the solvent of choice, which should be purged with an inert gas. CDF is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CDF in these solvents is approximately 10 mg/ml.

### Description

CDF is a semisynthetic coumarin with antiparasitic and anticancer activities.<sup>1,2</sup> It reduces the number of Vero cells infected with *T. gondii* promastigotes and amastigotes ( $EC_{50}$ s = 0.8 and 0.37  $\mu\text{M}$ , respectively).<sup>1</sup> CDF (4 and 8  $\mu\text{M}$ ) enhances 5-fluorouracil- and oxaliplatin-induced inhibition of primary and secondary colonosphere formation by chemoresistant HCT116 cells.<sup>2</sup>

### References

1. Khan, T.A., Koko, W.S., Al Nasr, I.S., *et al.* Activity of fluorinated curcuminoids against *Leishmania major* and *Toxoplasma gondii* parasites. *Chem. Biodivers.* **18**(9), e2100381 (2021).
2. Kanwar, S.S., Yu, Y., Nautiyal, J., *et al.* Difluorinated-curcumin (CDF): A novel curcumin analog is a potent inhibitor of colon cancer stem-like cells. *Pharm. Res.* **28**(4), 827-838 (2011).

#### 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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