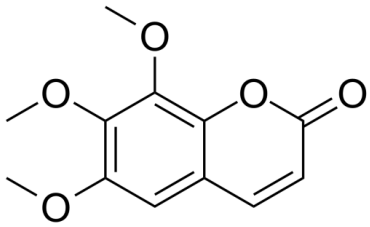
Data Sheet

Product Name:	Dimethylfraxetin
Cat. No.:	CS-7783
CAS No.:	6035-49-0
Molecular Formula:	C12H12O5
Molecular Weight:	236.22
Target:	Carbonic Anhydrase
Pathway:	Metabolic Enzyme/Protease
Solubility:	DMSO : 125 mg/mL (529.17 mM; Need ultrasonic and warming)



BIOLOGICAL ACTIVITY:

Dimethylfraxetin is a **Carbonic anhydrase** inhibitor, with a K_i value of 0.0097 μM. IC50 & Target: Ki: 0.0097 μM (Carbonic anhydrase)[1]
In Vitro: At CA I there is one stand out compound being Dimethylfraxetin (compound 17), a nanomolar CA I inhibitor. This trimethoxy coumarin is the most potent of any of the NP coumarins across the six CA isozymes of the present study[1].

PROTOCOL (Extracted from published papers and Only for reference)

Kinase Assay: [1]Inhibitor (including Dimethylfraxetin) and enzyme solutions are preincubated together for 6 h at room temperature prior to assay, in order to allow for the formation of the enzyme-inhibitor complex[1].

References:

[1]. Davis RA, et al. Natural product coumarins that inhibit human carbonic anhydrases. Bioorg Med Chem. 2013 Mar 15;21(6):1539-43.

CAIndexNames:

2H-1-Benzopyran-2-one, 6,7,8-trimethoxy-

SMILES:

O=C1C=CC2=CC(OC)=C(OC)C(OC)=C2O1

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