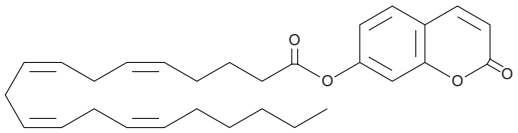
PRODUCT INFORMATION

7-hydroxycoumarinyl Arachidonate

Item No. 62910

CAS Registry No.:	161180-11-6
Formal Name:	5Z,8Z,11Z,14Z-eicosatetraenoic acid, 2-oxo-2H-1-benzopyran-7-yl ester
Synonym:	Umbelliferyl Arachidonate
MF:	$C_{29}H_{36}O_4$
FW:	448.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 282, 312 nm
Supplied as:	A solution in ethanol
Storage:	-80°C
Stability:	≥2 years



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

Laboratory Procedures

7-hydroxycoumarinyl Arachidonate is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 7-hydroxycoumarinyl arachidonate in these solvents is approximately 25 and 50 mg/ml, respectively.

7-hydroxycoumarinyl Arachidonate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of umbelliferyl arachidonate should be diluted with the aqueous buffer of choice. 7-hydroxycoumarinyl Arachidonate has a solubility of approximately 50 µg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

7-hydroxycoumarinyl Arachidonate is the arachidonic acid ester of 7-hydroxycoumarin (umbelliferone) and behaves as a substrate for the cPLA$_2$. Hydrolysis of 7-hydroxycoumarinyl arachidonate by phospholipase results in the release of the fluorescent compound, 7-hydroxycoumarin, which can be monitored spectrophotometrically (excitation at 335 nm, emission at 450 nm).[1,2]

References

1. Huang, Z., Lalibertè, F., Tremblay, N.M., *et al.* A continuous fluorescence-based assay for the human high-molecular-weight cytosolic phospholipase A$_2$. *Anal. Biochem.* **222**, 110-115 (1994).
2. Pickard, R.T., Chiou, X.G., Strifler, B.A., *et al.* Identification of essential residues for the catalytic function of 85-kDa cytosolic phospholipase A$_2$. Probing the role of histidine, aspartic acid, cysteine, and arginine. *J. Biol. Chem.* **271**, 19225-19231 (1996).

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