

Certificate of Analysis

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Product Name: DiFMUP

Catalog No.: 6882

Batch No.: 1

CAS Number: 214491-43-7

IUPAC Name: 6,8-Difluoro-4-methyl-7-(phosphonoxy)-2H-1-benzopyran-2-one

1. PHYSICAL AND CHEMICAL PROPERTIES

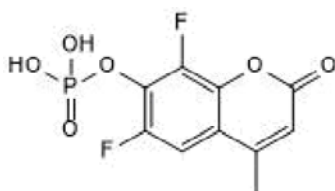
Batch Molecular Formula: C₁₀H₇F₂O₆P

Batch Molecular Weight: 292.13

Physical Appearance: White solid

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.3% purity

Mass Spectrum: Consistent with structure

ε_{max} = 316nm, λ = 7900cm⁻¹M⁻¹: (pH 10 buffer)

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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CAS Number: 214491-43-7

IUPAC Name: 6,8-Difluoro-4-methyl-7-(phosphonoxy)-2H-1-benzopyran-2-one

Description:

DiFMUP is a fluorescent phosphatase substrate widely used for the detection of phosphatase activity. The reaction product of DiFMUP has excitation/emission maxima of 358/455 nm. Note: This product is typically prepared in DMSO.

Physical and Chemical Properties:

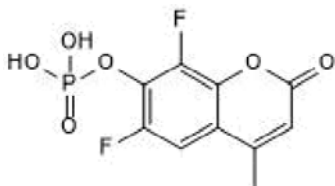
Batch Molecular Formula: C₁₀H₇F₂O₆P

Batch Molecular Weight: 292.13

Physical Appearance: White solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Welte et al (2005) 6,8-Difluoro-4-methylumbelliferyl phosphate: a fluorogenic substrate for protein tyrosine phosphatases. *Anal.Biochem.* **338** 32. PMID: 15707933.

Gee et al (1999) Fluorogenic substrates based on fluorinated umbelliferones for continuous assays of phosphatases and beta-galactosidases. *Anal.Biochem.* **273** 41. PMID: 10452797.

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