bio-techne
TOCRIS

Print Date: Jul 9th 2024

Certificate of Analysis

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Product Name: **GF-AFC** **Catalog No.: 8143** **Batch No.: 1**

IUPAC Name: (2*S*)-2-[(2-Aminoacetyl)amino]-*N*-[2-oxo-4-(trifluoromethyl)chromen-7-yl]-3-phenylpropanamide hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{21}H_{18}F_3N_3O_4.HCl.½H_2O$

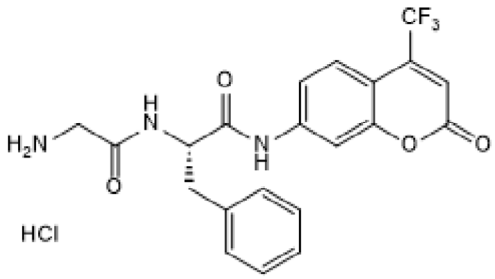
Batch Molecular Weight: 478.86

Physical Appearance: Off White solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.1% purity

Chiral HPLC: Shows 99.2% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	52.67	4.21	8.78	7.4
Found	51.92	4.64	8.46	7.12

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Description:

GF-AFC (glycyl-phenylalanyl-aminofluorocoumarin) is a cell permeable peptide fluorogenic substrate. GF-AFC is cleaved by cytosolic aminopeptidases for non-lytic high throughput cell viability assays. GF-AFC can be used as a substrate for measuring the activity of dipeptidyl peptidase 1 (DPP1), an intracellular lysosomal cysteinyl protease.

Physical and Chemical Properties:

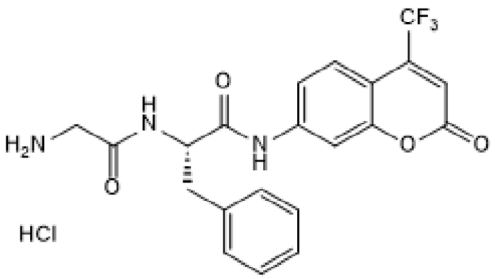
Batch Molecular Formula: $C_{21}H_{18}F_3N_3O_4.HCl.½H_2O$

Batch Molecular Weight: 478.86

Physical Appearance: Off White solid

Minimum Purity: ≥98%

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.

Solubility & Usage Info:

DMSO to 100 mM

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Liu *et al* (2017) Serum based fluorescent assay for evaluating dipeptidyl peptidase I activity in collagen induced arthritis rat model. Mol.Cell.Probes ***32*** 5. PMID: 27771442.

Niles *et al* (2007) A homogeneous assay to measure live and dead cells in the same sample by detecting different protease markers. Anal.Biochem. ***366*** 197. PMID: 17512890.