4-Methylumbelliferyl-2-acetamido-2-deoxy-β-D-Glucopyranoside

Cat. No.: HY-137853

CAS No.: 37067-30-4

Molecular Formula: $C_{18}H_{21}NO_8$

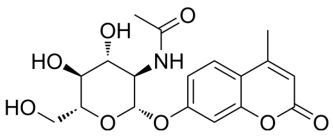
Molecular Weight: 379.36

Target: Fluorescent Dye

Pathway: Others

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (131.80 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6360 mL	13.1801 mL	26.3602 mL
	5 mM	0.5272 mL	2.6360 mL	5.2720 mL
	10 mM	0.2636 mL	1.3180 mL	2.6360 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (6.59 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.59 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.59 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

4-Methylumbelliferyl-2-acetamido-2-deoxy-β-D-Glucopyranoside is a fluorogenic substrate for N-acetyl-β-D-glucosaminidase[1].

In Vitro

The enzyme functionality is assessed by its ability remove terminal β-glycosidically bound N-acetylglucosamine and N-acetylgalactosamine residues from 4-Methylumbelliferyl-2-acetamido-2-deoxy-β-D-Glucopyranoside[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Li J, et, al. Identification of a specific inhibitor of nOGA - a caspase-3 cleaved O-GlcNAcase variant during apoptosis. Biochemistry (Mosc). 2012 Feb;77(2):194-200.

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