CellTracker Blue CMF2HC Dye

Cat. No.: HY-D1571

CAS No.: 215868-45-4

Molecular Formula: $C_{10}H_5ClF_2O_3$

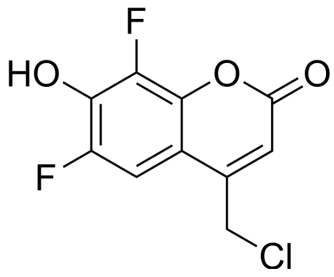
Molecular Weight: 246.59

Target: DNA Stain

Pathway: Cell Cycle/DNA Damage

Storage: 4°C, protect from light

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (506.91 mM; Need ultrasonic)

Preparing Stock Solutions	Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
	1 mM	4.0553 mL	20.2766 mL	40.5531 mL
	5 mM	0.8111 mL	4.0553 mL	8.1106 mL
	10 mM	0.4055 mL	2.0277 mL	4.0553 mL

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

BIOLOGICAL ACTIVITY

Description

CellTracker Blue CMF2HC Dye is a blue dye, can be used in two-channel nuclei acid sequencing, with blue and purple excitation light (450-460 nm/400-405nm or 415-450 nm/480-525nm). CellTracker Blue CMF2HC Dye can be used to rapid determination of antibiotic sensitivity of microorganisms[1][2].

In Vitro

CellTracker Blue CMF2HC Dye is a blue dye that can be excitable by a blue light source having a wavelength of about 450-460 nm, is used as the first or the second detectable label described herein[1].

Blue/Violet Two-Channel Sequencing Methods[1]:

1.Contacting a primer polynucleotide/taiget polynucleotide complex with a mixture comprising one or more of a first type of nucleotide, a second type of nucleotide, a third type of nucleotide, and a fourth type of nucleotide, wherein the primer polynucleotide is complementary to at least a portion ofthe single stranded target polynucleotide;

2.Incorporating one type of nucleotide from the mixture to the primer polynucleotide to produce an extended primer polynucleotide (i.e., an extended primer polynucleotide/target polynucleotide complex);

3.Performing a first imaging event using a first excitation light source and collecting a first emission signal from the extended primer polynucleotide/target polynucleotide complex with a first emission filer;

4.Performing a second imaging event using a second excitation light source and collecting a second emission signal from the extended primer polynucleotide/taiget polynucleotide complex with a second emission filter;

Note[1]:

	a. one of the first excitation light source and the second excitation light source has a wavelength of about 350 nm to about 410 nm, and the other one of the first excitation light source and the second excitation light source has a wavelength of about 450 nm to about 460 nm; b. one of the first emission filter and the second emission filter has a detection wavelength of about 415 nm to about 450 nm, and the other one of the first emission filter and the second emission filter has a detection wavelength of about 480 nm to about 525 nm. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Wu Xiaolin, et al. Methods and compositions for nucleic acid sequencing: US, US20220195518[P]. 2022-06-23.

[2]. Super Michael, et al. Rapid antibiotic susceptibility testing: US, US20150064703[p]. 2015-03-05.

Caution: Product has not been fully validated for medical applications. For research use only.

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