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Product Data Sheet

CI HCI HCI

Quinacrine mustard dihydrochloride

Cat. No.:	HY-W127705	CI
CAS No.:	4213-45-0	
Molecular Formula:	C ₂₃ H ₃₀ Cl ₅ N ₃ O	_ N
Molecular Weight:	541.77	
Target:	Fluorescent Dye	N
Pathway:	Others	
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.	

Description	Quinacrine mustard dihydrochloride is a fluorochrome. Quinacrine mustard dihydrochloride as a polycyclic aromatic agent can be used as mutagenic agent induces the mutants of bacteria. Quinacrine mustard dihydrochloride induces cell cycle arrest at G2/M-phase. Quinacrine mustard dihydrochloride has the potential for the research of plant, animal, or human chromosomes ^{[1][2][3]} .			
In Vitro	Quinacrine mustard dihydrochloride (5 μg/ml) can be used for the DNA strain of plant, animal, or human chromosomes ^[1] . Quinacrine mustard dihydrochloride (28 μM) increases the number ofmutants that appeared after an exposure of bacteria ^[2] . quinacrine mustard dihydrochloride (0.2 μM; 4h) induces cell cycle arrest at G2+M-phase in HL-60 cells ^[3] . Caffeine (5 mM) prevents the cytotoxic action of quinacrine mustard dihydrochloride (0.2 μM; 4h) in HL-60 cells ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Cycle Analysis ^[3]			
	Cell Line:	HL-60 cells		
	Concentration:	0.2 μΜ		
	Incubation Time:	4 h		
	Result:	Induced cell cycle arrest at G2+M-phase with the accumulation of cells in this compartment by 50%.		

REFERENCES

[1]. Caspersson T, et al. Fluorescent labeling of chromosomal DNA: superiority of quinacrine mustard to quinacrine. Science. 1970 Nov 13;170(3959):762.

[2]. Piosik J, et al. Alleviation of mutagenic effects of polycyclic aromatic agents (quinacrine mustard, ICR-191 and ICR-170) by caffeine and pentoxifylline. Mutat Res. 2003 Sep 29;530(1-2):47-57.

[3]. Kapuscinski J, et al. The modulation of the DNA-damaging effect of polycyclic aromatic agents by xanthines. Part I. Reduction of cytostatic effects of quinacrine mustard by caffeine. Biochem Pharmacol. 2002 Feb 15;63(4):625-34.

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

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