



# SZABO SCANDIC

Part of Europa Biosite

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- Expressversand

### SZABO-SCANDIC HandelsgmbH

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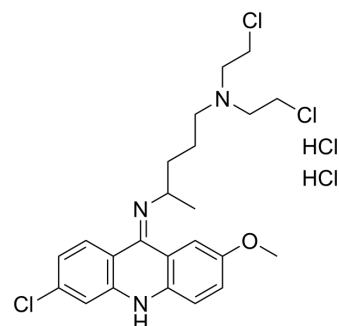
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## Quinacrine mustard dihydrochloride

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



### BIOLOGICAL ACTIVITY

|                    |  |            |             |                |        |                  |     |         |  |
|--------------------|--|------------|-------------|----------------|--------|------------------|-----|---------|--|
| <b>Description</b> | 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 <sup>[1][2][3]</sup> .  |            |             |                |        |                  |     |         |  |
| <b>In Vitro</b>    | <p>Quinacrine mustard dihydrochloride (5 µg/ml) can be used for the DNA stain of plant, animal, or human chromosomes<sup>[1]</sup>. Quinacrine mustard dihydrochloride (28 µM) increases the number of mutants that appeared after an exposure of bacteria<sup>[2]</sup>. Quinacrine mustard dihydrochloride (0.2 µM; 4h) induces cell cycle arrest at G2+M-phase in HL-60 cells<sup>[3]</sup>. Caffeine (5 mM) prevents the cytotoxic action of quinacrine mustard dihydrochloride (0.2 µM; 4h) in HL-60 cells<sup>[3]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cycle Analysis<sup>[3]</sup></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Cell Line:</td> <td>HL-60 cells</td> </tr> <tr> <td>Concentration:</td> <td>0.2 µM</td> </tr> <tr> <td>Incubation Time:</td> <td>4 h</td> </tr> <tr> <td>Result:</td> <td>Induced cell cycle arrest at G2+M-phase with the accumulation of cells in this compartment by 50%.</td> </tr> </table> | Cell Line: | HL-60 cells | Concentration: | 0.2 µM | Incubation Time: | 4 h | Result: | Induced cell cycle arrest at G2+M-phase with the accumulation of cells in this compartment by 50%. |
| Cell Line:         | HL-60 cells  |            |             |                |        |                  |     |         |  |
| Concentration:     | 0.2 µM   |            |             |                |        |                  |     |         |  |
| 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.

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

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