

## Chloroquine

(本试剂仅供科研使用)

### 一、产品包装

| 产品编号     | 产品名称        | 包装规格 |
|----------|-------------|------|
| YGC10549 | Chloroquine | 50mg |

### 二、产品简介

Chloroquine is used as an antimalarial drug and also functions to increase sensitivity of tumor cells to radiation and chemotherapy via inducing autophagy .

Chloroquine has been reported as an adjuvant for radiation and chemotherapy for inducing cell autophagy to anti-cancer cells proliferation or metastasis. The mechanism of chloroquine diphosphate inducing cells autophagy is arresting cells in G1, up-regulates the expression of p27 and p53 while down-regulates the expression of CDK2 and cyclin D1.

Apart from anti-malarial, chloroquine also has long been reported functioning in cell apoptosis. Pretreated CNE-2 human nasopharyngeal carcinoma cells with chloroquine enhanced ionizing radiation induced cell apoptosis via increasing cells autophagic ratio. When treated with mouse breast cancer 4T1 cells, chloroquine treatment inhibited cellular proliferation and viability which resulted in cells apoptosis in a time- and dose- dependent manner. In human colon cancer DLD-1 cells, combination of 5-FU and chloroquine could inhibit cells proliferation via inducing autophagy.

In mouse model with 4T1 cells subcutaneous xenograft, chloroquine treatment significantly inhibited tumor growth and tumor cells metastasis to the lung, thus enhanced the mice survival . In BALB/c mice injected with colon26 cells subcutaneously, chloroquine cooperated with 5-FU significantly enhanced the inhibition of tumor growth induced by 5-FU through increasing the ratio of apoptotic cells.

### 三、化学性质

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|-------|--------------------------------------------------|
| CAS 号 | 54-05-7                                          |
| 分子式   | C <sub>18</sub> H <sub>26</sub> ClN <sub>3</sub> |
| 分子量   | 319.8721                                         |