# Reported effects of Aeroplysinin-1

## Cytotoxic/antitumoral

| $IC_{50}$ [µM] | BioAssay | Reference |
|---|---|---|
| | **NCI *in vivo* anticancer drug screen. Data for tumor model L1210 Leukemia (intraperitoneal) in B6D2F1 (BDF1) mice (active)** | a[1] |
| 29 | Cytotoxicity against BAEC after 2 days by MTT assay | [1] |
| 8.9 | Dose enhancement factor, ratio of $IC_{50}$ for mouse EN19 cells after 3 days to $IC_{50}$ for buthionine sulfoximine-pretreated mouse EN19 cells after 3 days by MTT assay | [2] |
| 37 | Cytotoxicity against mouse EN19 cells after 1 week by clonogenic assay | [2] |
| 1.1 | Cytotoxicity against buthionine sulfoximine-pretreated mouse EN19 cells after 2 hours by MTT assay | [2] |
| 8.2 | Cytotoxicity against mouse EN19 cells after 2 hours by MTT assay | [2] |
| 5.6 | Cytotoxicity against human HeLaS3 cells after 4 days by MTT assay | [2] |
| 27.5 | Cytotoxicity against human HeLaS3 cells after 2 weeks by clonogenic assay | [2] |
| 0.7 | Cytotoxicity against buthionine sulfoximine-pretreated mouse EN19 cells after 3 days by MTT assay | [2] |
| 18.8 | Cytotoxicity against human HeLaS3 cells after 2 hours by MTT assay | [2] |
| 2 | Dose enhancement factor, ratio of $IC_{50}$ for human HeLaS3 cells after 4 days to IC50 for buthionine sulfoximine-pretreated human HeLaS3 cells after 4 days by MTT assay | [2] |
| 6.2 | Cytotoxicity against mouse EN19 cells after 3 days by MTT assay | [2] |
| 5.4 | Cytotoxicity against buthionine sulfoximine-pretreated human HeLaS3 cells after 2 hours by MTT assay | [2] |
| 2.8 | Cytotoxicity against buthionine sulfoximine-pretreated human HeLaS3 cells after 4 days by MTT assay | [2] |
| 3.5 | Dose enhancement factor, ratio of $IC_{50}$ for human HeLaS3 cells after 2 hours to $IC_{50}$ for buthionine sulfoximine-pretreated human HeLaS3 cells after 2 hours by MTT assay | [2] |
| 7.5 | Dose enhancement factor, ratio of $IC_{50}$ for mouse EN19 cells after 2 hours to $IC_{50}$ for buthionine sulfoximine-pretreated mouse EN19 cells after 2 hours by MTT assay | [2] |
| 3 | *In vitro* cytotoxicity against HeLa tumor cells | [3] |
| | Growth inhibition of endothelial cells in culture and induction of endothelial cell apoptosis. Abrogation of capillary tube formation. Dose-dependent inhibitory effect on the in vivo chorioallantoic membrane assay. | [4] |

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|---|---|---|
| | Growth inhibition and induction of cell apoptosis (BAE cells, HCT116 and HT1080 tumor cells) | [5] |
| | Ca. 95 % inhibition of growth against U937 cells (lymphoma) at a concentration of 20 µM | [6] |
| | Inhibition of Proliferation and the Expression of Key Pro-Inflammatory Molecules in Human Endothelial and Monocyte Cells. $IC_{50}$ values [µM]: 3.0 (EVLC-2), 2.6 (HMEC), 2.8 (RF-24), 4.7 (HUVEC) | [7] |
| | **Antileukemic activity *in vivo* using the L5178y cell/NMRI mouse system** | [8] |
| | Anticancer activity against L5178y mouse lymphoma cells ($ED_{50}$: 0.5 µM), Friend erythroleukemia cells ($ED_{50}$: 0.7 µM), human mamma carcinoma cells ($ED_{50}$: 0.3 µM) and human colon carcinoma cells ($ED_{50}$: 3.0 µM) *in vitro* | [8] |
| | Anticancer activity against L5178y lymphoma cell line (ED50: 0.47 µM) | [9] |
| | Reduction of the viability of AML cells in a dose dependent manner with $IC_{50}$ of 10-20 µM. Efficient trigger for apoptosis. | [10] |

a[1]: PUBMED-entry for Aeroplysinin-1

## Antiparasitic

| | BioAssay | Reference |
|---|---|---|
| c = 5 µM | Ca. 35 % inhibition of growth against *P. falciparum* | [6] |
| c = 10 µM | Ca. 29 % inhibition of growth against *T. cruzi* | [6] |

## Antiviral

| | BioAssay | Reference |
|---|---|---|
| | Inhibition of the HIV-1 replication in a dose-dependent manner, with a median maximum percentage of inhibition of 74% (20 µM) | [11] |

## Antibacterial

| | Effect against | Reference |
|---|---|---|
| | *S. aureus*<br>*B. subtilis*<br>*E. coli ATCC 25922*<br>*E. coli HB 01* | [2] |
| | *S. albus*<br>*B. cereus*<br>*B. subtilis* | [12] |
| | *B. subtilis*<br>*S. lentus*<br>*E. amylovora* | [13] |
| | *Alteromonas* spec.<br>*Cytophaga/Flexibacter* spec.<br>*Moraxella* spec.<br>*Vibria* spec.<br>*P. fluorescens*<br>*S. plymuthica*<br>*V. anguillarum*<br>*P. citreus*<br>*P. phophoreum* | [14] |

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