# S-(N-PhenethylthiocarbaMoyl)-L-cysteine

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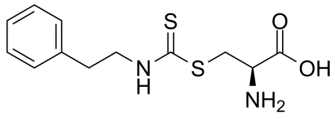
| **Cat. No.:** | HY-115754 |
| **CAS No.:** | 53330-02-2 |
| **Molecular Formula:** | $C_{12}H_{16}N_2O_2S_2$ |
| **Molecular Weight:** | 284.4 |
| **Target:** | DNA/RNA Synthesis; Cytochrome P450 |
| **Pathway:** | Cell Cycle/DNA Damage; Metabolic Enzyme/Protease |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

**Description**

S-(N-PhenethylthiocarbaMoyl)-L-cysteine (PEITC-Cys), an anticarcinogenic agent, has antileukemic activity. S-(N-PhenethylthiocarbaMoyl)-L-cysteine inhibits DNA synthesis in HL60 cells[1]. S-(N-PhenethylthiocarbaMoyl)-L-cysteine is a P450 inhibitor[2].

**$IC_{50}$ & Target**

DNA Synthesis[1]; P450[2]

**In Vitro**

S-(N-PhenethylthiocarbaMoyl)-L-cysteine inhibits cell growth of HL60 cell ($GC_{50}$=336 nM)[1].
S-(N-PhenethylthiocarbaMoyl)-L-cysteine inhibits DNA synthesis in HL60 cells ($IC_{50}$=6.47 μM)[1].
S-(N-PhenethylthiocarbaMoyl)-L-cysteine induced DNA fragmentation in HL 60 cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

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| Cell Line: | HL60 cells |
| Concentration: | 0.1-10 μM |
| Incubation Time: | 48 hours |
| Result: | Inhibited the cell growth with a $GC_{50}$ value of 336 nM. |

Cell Proliferation Assay[1]

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|---|---|
| Cell Line: | HL60 cells |
| Concentration: | 4 μM |
| Incubation Time: | 0, 20, 40, 60, 80, 100 hours |
| Result: | Inhibited the cell growth. |

## REFERENCES

[1]. Adesida A, Edwards LG, Thornalley PJ. Inhibition of human leukaemia 60 cell growth by mercapturic acid metabolites of phenylethyl isothiocyanate. Food Chem

Toxicol. 1996 Apr;34(4):385-92.

[2]. Conaway CC, et al. Decomposition rates of isothiocyanate conjugates determine their activity as inhibitors of cytochrome p450 enzymes. Chem Res Toxicol. 2001 Sep;14(9):1170-6.



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