



Data Sheet

Research Use Only

Compound Name

RG108

Catalog Number

SM31

Alternative Names

RG 108, DNA Methyltransferase Inhibitor, N-Phthalyl-L-tryptophan

Activity

RG108 is a non-nucleoside DNA methyltransferase (DMNT) inhibitor. RG108 effectively blocked DNA methyltransferases *in vitro* and does not cause covalent enzyme trapping in human cell lines. RG108 significantly reduces the methylation of genomic DNA in cells at 10 μ M without detectable toxicity, distinguishing it from nucleoside-based inhibitors like 5-azacytidine. Through these actions, RG108 demethylates and reactivates epigenetically silenced tumor suppressor genes.

Effect

RG108 inhibits human tumor cell line (HCT116, NALM-6) proliferation and increased doubling time in culture.

Purity

>98%

CAS

48208-26-0

Formula

$C_{19}H_{14}N_2O_4$

Molecular Weight

334.33

Solubility

DMSO, ethanol

Stability

Stable at -20°C. Keep away from direct sunlight.

References

1. Brueckner, B., et al. 2005. Cancer Res. 65(14): 6305-6311. PMID: 16024632
2. Stresemann, C., et al. 2006. Cancer Res. 66(5): 2794-2800. PMID: 16510601
3. Schirrmacher, E., et al. 2006. Bioconjug Chem.17(2): 261-266. PMID: 16536454