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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

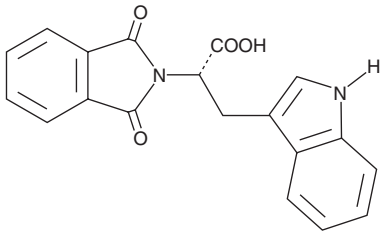
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

RG-108

Item No. 13302

CAS Registry No.: 48208-26-0
Formal Name: a-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-(aS)-1H-indole-3-propanoic acid
Synonyms: N-Phthalyl-L-Tryptophan
MF: $C_{19}H_{14}N_2O_4$
FW: 334.3
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

RG-108 is supplied as a crystalline solid. A stock solution may be made by dissolving the RG-108 in an organic solvent purged with an inert gas. RG-108 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of RG-108 in these solvents is approximately 50 mg/ml in ethanol and approximately 30 mg/ml in DMSO and DMF.

RG-108 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, RG-108 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. RG-108 has a solubility of approximately 0.1 mg/ml in a 1:10 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

DNA methylation regulates gene expression in normal and malignant cells. RG-108 is a non-nucleoside DNA methyltransferase inhibitor (IC_{50} = 115 nM *in vitro*).[1] It significantly reduces the methylation of genomic DNA in cells at 10 µM without detectable toxicity, distinguishing it from nucleoside-based inhibitors like 5-azacytidine.[1,2] Further, RG-108 inhibits DNA methyltransferase activity by blocking the enzyme active site.[2] Through these actions, RG-108 demethylates and reactivates epigenetically silenced tumor suppressor genes.[1]

References

1. Brueckner, B., Boy, R.G., Siedlecki, P., *et al.* Epigenetic reactivation of tumor suppressor genes by a novel small-molecule inhibitor of human DNA methyltransferases. *Cancer Res* **65(14)**, 6305-6311 (2005).
2. Stresemann, C., Brueckner, B., Musch, T., *et al.* Functional diversity of DNA methyltransferase inhibitors in human cancer cell lines. *Cancer Res* **66(5)**, 2794-2800 (2006).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM