

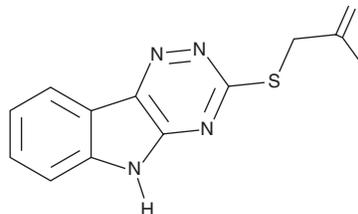
PRODUCT INFORMATION



Rbin-1

Item No. 20745

CAS Registry No.: 328023-11-6
Formal Name: 3-[(2-methyl-2-propen-1-yl)thio]-5H-1,2,4-triazino[5,6-b]indole
Synonym: Ribozinoindole-1
MF: C₁₃H₁₂N₄S
FW: 256.3
Purity: ≥98%
UV/Vis.: λ_{max}: 224, 266, 346 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Rbin-1 is supplied as a crystalline solid. A stock solution may be made by dissolving the Rbin-1 in the solvent of choice, which should be purged with an inert gas. Rbin-1 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of Rbin-1 in these solvents is approximately 25 and 5 mg/ml, respectively.

Description

Rbin-1 is a triazinoindole inhibitor of midasin (mdn1), an essential protein for eukaryotic ribosome biogenesis.¹ It inhibits the growth of fission yeast strains *in vitro* (GI₅₀ = 136 nM) and inhibits mdn1 ATPase activity by approximately 40% when used at a concentration of 1 μM. Rbin-1 inhibits pre-rRNA processing and nuclear export of the pre-60S ribosome subunit in *mdn1*-ts, but not *mdn1-F1093L* mutant, *S. pombe* cells. It also decreases ribosome assembly protein 4 (Rsa4) levels in Rix1 particles, a ribosome assembly intermediate, Rix1-bound Ytm1 levels, and Rix7 and Ppp1 levels in the nucleolar pre-60S particle Nsa1 in *mdn1*-ts fission yeast cells.

Reference

1. Kawashima, S.A., Chen, Z., Aoi, Y., *et al.* Potent, reversible, and specific chemical inhibitors of eukaryotic ribosome biogenesis. *Cell* **167**(2), 512-524 (2016).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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