

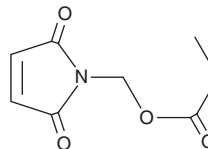
PRODUCT INFORMATION



MIRA-1

Item No. 14858

CAS Registry No.: 72835-26-8
Formal Name: 1-[(1-oxopropoxy)methyl]-1H-pyrrole-2,5-dione
Synonym: NSC 19630
MF: $C_8H_9NO_4$
FW: 183.2
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 215 nm
Supplied as: A 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

MIRA-1 is supplied as a solid. A stock solution may be made by dissolving the MIRA-1 in the solvent of choice, which should be purged with an inert gas. MIRA-1 is soluble in organic solvents such as ethanol and DMSO. The solubility of MIRA-1 in these solvents is approximately 18.3 mg/ml.

Description

MIRA-1 is a maleimide-derived small molecule that reactivates the tumor suppressor function of mutant p53, inducing apoptosis in several human solid tumor cell lines carrying tetracycline-regulated mutant p53 ($IC_{50} = 10 \mu\text{M}$ *in vitro*).¹ Treatment of tumor cells with MIRA-1 induces p21, MDM2 and PUMA in a mutant p53-dependent manner.¹ At a concentration of 5-10 mg/kg, MIRA-1, alone or in combination with dexamethasone (Item No. 11015), arrested tumor growth in a mouse xenograft model of multiple myeloma.²

References

1. Bykov, V.J.N., Issaeva, N., Zache, N., *et al.* Reactivation of mutant p53 and induction of apoptosis in human tumor cells by maleimide analogs. *J. Biol. Chem.* **280**(34), 30384-30391 (2005).
2. Saha, M.N., Chen, Y., Chen, M.-H., *et al.* Small molecule MIRA-1 induces *in vitro* and *in vivo* anti-myeloma activity and synergizes with current anti-myeloma agents. *Br. J. Cancer* **110**(9), 2224-2231 (2014).

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.

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