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DATASHEET

Nocodazole

Product overview

Name Nocodazole Cat No HB3999 **Biological action** Inhibitor >98% **Purity**

Description Mitosis inhibitor, widely used as a cell cycle synchronizing agent. Enhances HDR efficiency and

increases Cas9-mediated gene editing frequencies.

Biological Data

Biological description Mitosis inhibitor which which induces microtubule depolymerization in vivo and inhibits tubulin

polymerziation. Arrest cell cycle at the G2/M phase. Widely used as a cell cycle synchronizing agent. Enhances homology-directed repair (HDR) efficiency (depending on cell cycle phase) and increases

Cas9-mediated gene editing frequencies.

Solubility & Handling

Storage instructions

Important

+4°C

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not

for human or veterinary use.

Chemical Data

Molecular Weight

301.3 **Chemical structure**

Molecular Formula $C_{14}H_{11}N_3O_3S$ **CAS Number** 31430-18-9 **PubChem identifier** 4122

COC(=O)NC1=NC2=CC(=CC=C2N1)C(=O)C1=CC=CS1 **SMILES**

KYRVNWMVYQXFEU-UHFFFAOYSA-N InChiKey

White to off-white solid **Appearance**

References

Nanomolar concentrations of nocodazole alter microtubule dynamic instability in vivo and in vitro.

Vasquez et al (1997) Mol Biol Cell 8(6): PubMedID 9201709

Microtubule disruption inhibits autophagosome-lysosome fusion: implications for studying the roles of aggresomes in polyglutamine diseases.

Webb et al (2004) Int J Biochem Cell Biol 36(12)

PubMedID 15325591

Enhanced homology-directed human genome engineering by controlled timing of CRISPR/Cas9 delivery.

Lin et al (25497837) Elife 15(3)

PubMedID 25497837