# Product Data Sheet

Product Name: M2I-1
Cat. No.: GC30074

## Chemical Properties

| | | | |
|---|---|---|---|
| Cas. No. | 312271-03-7 | | |
| SMILES | O=C(/C(C(N1)=O)=C\C2=CC=C(N(CC(C)C)CC(C)C)C([N+]([O-])=O)=C2)NC1=S | | |
| Formula | $C_{19}H_{24}N_4O_4S$ | M.Wt | 404.48 |
| Solubility | DMSO : ≥ 32 mg/mL (79.11 mM) | Storage | Store at -20°C |
| General tips | For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months. | | |
| Shipping Condition | Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request. | | |
| Structure | M2I-1 | | |

## Background

M2I-1 is an inhibitor of the protein-protein interaction between the spindle assembly checkpoint protein mitotic arrest deficient 2 (Mad2) and cell division cycle 20 (Cdc20), a coactivator of the anaphase-promoting complex/cyclosome (APC/C).[1] It inhibits Mad2 binding to $Cdc20^{111-138}$ when used at concentrations ranging from 6.25 to 100 µM. M2I-1 (25 µM) reduces increases in mitotic duration induced by paclitaxel in HeLa cells. M2I-1 (20-120 µM) reduces 4-cell embryo and blastocyst formation in hydrogen peroxide-exposed mouse zygotes, as well as increases the rate of sex chromosome mosaicism in male mouse *in vitro* fertilization-derived embryos.[2]

1.Kastl, J., Braun, J., Prestel, A., et al.Mad2 inhibitor-1 (M2I-1): A small molecule protein-protein interaction inhibitor targeting the mitotic spindle assembly checkpointACS Chem. Biol.10(7)1661-1666(2015) 2.Huang, Y., Ha, S., Li, Z., et al.CHK1-CENP B/MAD2 is associated with mild oxidative damage-induced sex chromosome aneuploidy of male mouse embryos during in vitro fertilizationFree Radic. Biol. Med.137181-193(2019)


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