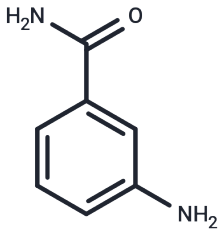
# Data Sheet (Cat.No.T6329)

TargetMol

## 3-Aminobenzamide

### Chemical Properties



CAS No. : 3544-24-9

Formula: C7H8N2O

Molecular Weight: 136.15

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

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| Description | 3-Aminobenzamide (PARP-IN-1) is a potent PARP inhibitor (IC50 < 50 nM in CHO cells) and mediates oxidant-induced myocyte dysfunction during reperfusion. |
| Targets(IC50) | PARP |
| In vitro | INO-1001 (>1 μM) leads to more than 95% inhibition of PARP activity without significant cellular toxicity. In addition, INO-1001 significantly sensitizes CHO cells by blocking most of the DNA repair occurring between radiation fractions. [1] Inhibition of PARP activity by INO-1001 significantly improves endothelial function by enhancing the acetylcholine-induced, endothelium-dependent, nitric oxide mediated vasorelaxation after exposure with 400 μM Water2. [2] |
| In vivo | In a db/db (Leprdb/db) mouse model, INO-1001 ameliorates diabetes-induced albumin excretion and mesangial expansion, and also decreases diabetes-induced podocyte depletion. [3] Treatment with INO-1001 (1.6 mg/kg via intracerebral injection) prevents NAD+ depletion and improves water maze performance after controlled cortical impact (CCI) in mice. [4] |
| Kinase Assay | PARP activity is measured with a PARP Activity Assay Kit. This method measures relative PARP activity by determining the level of incorporation of?3H-NAD into trichloroacetic acid (TCA) precipitable material in the presence of sheared genomic DNA, which activates PARP. The reaction mixture is added directly to washed cultures in 12-well culture plates and the reaction is allowed to proceed for 60 minutes at 37°C before the cells are removed mechanically, transferred to a microcentrifuge tube, and precipitated with ice-cold 5% TCA. |

### Solubility Information

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| Solubility | Ethanol: 26 mg/mL (190.97 mM),Sonication is recommended.<br>DMSO: 250 mg/mL (1836.21 mM),Sonication is recommended.<br>H2O: < 1 mg/mL (insoluble or slightly soluble),<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween-80+45% Saline: 5 mg/mL (36.72 mM),Sonication is recommended.<br>10% DMSO+90% Saline: 10 mg/mL (73.45 mM),Solution.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one.* |

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| In vivo Formulation | *Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 7.3448 mL | 36.7242 mL | 73.4484 mL |
| 5 mM | 1.469 mL | 7.3448 mL | 14.6897 mL |
| 10 mM | 0.7345 mL | 3.6724 mL | 7.3448 mL |
| 50 mM | 0.1469 mL | 0.7345 mL | 1.469 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Brock WA, et al. Cancer Lett. 2004, 205(2), 155-160.
Arendt W, Piekarska K, Hałas-Wiśniewska M, et al.Downregulation and inhibition of TRPM2 calcium channel prevent oxidative stress-induced endothelial dysfunction in the EA. hy926 endothelial cells model-preliminary studies.Advances in Medical Sciences.2025
Radovits T, et al. Eur J Pharmacol. 2007, 564(1-3), 158-166.
Szabó C, et al. Diabetes. 2006, 55(11), 32004-32012.
Clark RS, et al. J Neurotrauma. 2007, 24(8), 1399-1405.
Toshimitsu H, et al. Ann Surg Oncol. 2010, 17(8), 2247-2254.