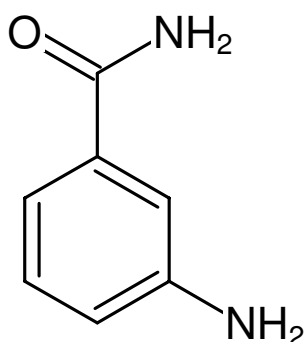




3-Aminobenzamide

Inhibitor of poly(ADP-ribose)polymerase (PARP)
m-Aminobenzamide

Cat. No.	Amount
NU-958	10 mg



Structural formula of 3-Aminobenzamide

For research use only!

Shipping: shipped on blue ice

Storage Conditions: store at -20 °C

Shelf Life: 12 months after date of delivery

Molecular Formula: C₇H₈N₂O

Molecular Weight: 136.15 g/mol

CAS#: 3544-24-9

EC number: 222-586-9

Form: solid

Description:

3-Aminobenzamide is a potent inhibitor of the enzyme PARP (IC₅₀ < 50 nM, CHO-cells). PARP is involved in DNA-repair, apoptosis, necrosis, DNA damage induced cell death, cell proliferation, cell differentiation and gene expression. Thus inhibition of PARP has a beneficial effect in inflammatory diseases, myocardial reperfusion, stroke, neurotrauma, arthritis, allergic encephalomyelitis, multiple sclerosis, diabetes and various forms of cancer^[1-4]. PARP synthesizes branched nucleic acid-like polymers that are covalently attached to acceptor proteins influencing their function. Poly(ADP-ribosylation) is a dynamic process as indicated by the short half-life of the polymer. The metabolism of poly(ADP-ribose) is completed by the degrading enzyme poly(ADP-ribose)glycohydrolase (PARG)^[5]. PARP-1 interacts non-covalently with DNA methyltransferase 1, preventing its enzymatic activity^[6].

Selected References:

[1] Virag *et al.* (2002) The therapeutic potential of poly(ADP-ribose)polymerase inhibitors. *Pharmacol. Rev.* **54** (3):375.

[2] Jagtap *et al.* (2005) Poly(ADP-ribose)polymerase and the therapeutic effects of its inhibitors. *Nature Reviews Drug Discovery* **4**:421.

[3] Masutani *et al.* (2005) Poly(ADP-ribosylation) in relation to cancer and autoimmune diseases. *Cell. Mol. Life Sci.* **62**: 769.

[4] Biro *et al.* (2016) The effect of poly(ADP-ribose)polymerase inhibition of aminoglycoside-induced acute tubular necrosis in rats. *Clinical Nephrology* **85** (4):226.

[5] Meyer-Fica *et al.* (2005) Poly(ADP-ribose)polymerase: managing genome stability. *Int. J. Biochem. & Cell Biol.* **37**:920.

[6] Caiafa *et al.* (2009) Epigenetics: poly(ADP-ribosylation) of PARP-1 regulates genomic methylation patterns. *FASEB J.* **23**:672.