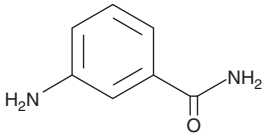
PRODUCT INFORMATION

3-amino Benzamide

Item No. 10397

CAS Registry No.: 3544-24-9
Formal Name: 3-amino-benzamide
Synonyms: *m*-Aminobenzamide, 3-(Aminocarbonyl) Aniline, 3-Carboxamidoaniline, NSC 36962
MF: $C_7H_8N_2O$
FW: 136.2
Purity: ≥98%
UV/Vis.: λ_{max}: 218, 314 nm
Supplied as: A crystalline 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

3-amino Benzamide is supplied as a crystalline solid. A stock solution may be made by dissolving the 3-amino benzamide in the solvent of choice, which should be purged with an inert gas. 3-amino Benzamide is soluble in organic solvents such as ethanol, DMSO and dimethyl formamide. The solubility of 3-amino benzamide in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 3-amino benzamide can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 3-amino benzamide in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

3-amino benzamide is an inhibitor of poly(ADP-ribose) polymerase (PARP; IC_{50} = 5.4 µM in C3H/10T1/2 mouse stem cells).[1] It inhibits spontaneous, as well as FGF2-induced, invasiveness of human umbilical vein endothelial cells (HUVECs) when used at a concentration of 50 µM.[2] 3-amino benzamide (50 µM) induces tubulogenesis and reduces FGF2-induced expression of the gene encoding urokinase-type plasminogen activator (uPA) in HUVECs. It reduces telomere length in HeLaS3 human cervical cancer cells and non-cancerous COM3 hamster cells in a concentration-dependent manner.[3]

References

1. Rankin, P.W., Jacobson, E.L., Benjamin, R.C., *et al.* Quantitative studies of inhibitors of ADP-ribosylation *in vitro* and *in vivo*. *J. Biol. Chem.* **264(8)**, 4312-4317 (1989).
2. Caldini, R., Fanti, E., Magnelli, L., *et al.* Low doses of 3-aminobenzamide, a poly(ADP-ribose) polymerase inhibitor, stimulate angiogenesis by regulating expression of urokinase type plasminogen activator and matrix metalloprotease 2. *Vasc. Cell* **3(1)**, 12 (2011).
3. Beneke, S., Cohausz, O., Malanga, M., *et al.* Rapid regulation of telomere length is mediated by poly(ADP-ribose) polymerase-1. *Nucleic Acids Res.* **36(19)**, 6309-6317 (2008).

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