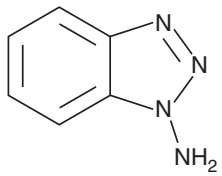
PRODUCT INFORMATION

1-Aminobenzotriazole

Item No. 15252

CAS Registry No.: 1614-12-6
Formal Name: 1H-benzotriazol-1-amine
Synonyms: ABT, 3-Aminobenzotriazole, 1-Benzotriazolylamine, NSC 114498, NSC 656987
MF: $C_6H_6N_4$
FW: 134.1
Purity: ≥98%
UV/Vis.: λ_{max}: 263 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

1-Aminobenzotriazole (ABT) is supplied as a crystalline solid. A stock solution may be made by dissolving the ABT in the solvent of choice, which should be purged with an inert gas. ABT is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of ABT 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 ABT can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of ABT in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

ABT is a non-specific cytochrome P450 (CYP) inhibitor.[1-3] It does not appear to affect other enzymes, including UDP-glucuronosyltransferases.[4,5] ABT acts as a CYP suicide substrate, producing maximal destruction of hepatic and renal microsome CYP protein *in vitro* at 10 mM.[4] It is effective *in vivo*, significantly reducing CYP content in both liver and kidney in rats within two hours.[4] The effects of ABT on CYP activity is time-dependent, with significant shift in IC_{50} values with preincubation.[3]

References

1. Ma, L.-l., Wu, Z.-t., Wang, L., *et al. Acta. Pharmacol. Sin.* **37(3)**, 415-424 (2016).
2. Miyakawa, K., Albee, R., Letzig, L. G., *et al. J. Pharmacol. Exp. Ther.* **354(2)**, 230-237 (2015).
3. Emoto, C., Murase, S., Sawada, Y., *et al. Drug Metab. Pharmacokinet.* **20(5)**, 351-357 (2005).
4. Mugford, C. A., Mortillo, M., Mico, B. A., *et al. Fundam. Appl. Toxicol.* **19(1)**, 43-49 (1992).
5. Walsky, R.L., Bauman, J.N., Bourcier, K., *et al. Drug Metab. Dispos.* **40(5)**, 1051-1065 (2012).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM