

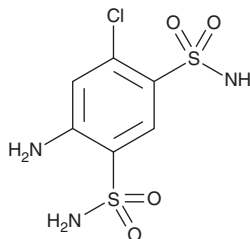
PRODUCT INFORMATION



4-Amino-6-chloro-1,3-benzenedisulfonamide

Item No. 21309

CAS Registry No.: 121-30-2
Formal Name: 4-amino-6-chloro-1,3-benzenedisulfonamide
Synonyms: ACB, Chloraminophenamide, 3-Chloroaniline-4,6-disulfonamide, NSC 93772
MF: C₆H₈ClN₃O₄S₂
FW: 285.7
Purity: ≥98%
UV/Vis.: λ_{max}: 223, 264, 312 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

4-Amino-6-chloro-1,3-benzenedisulfonamide is supplied as a crystalline solid. A stock solution may be made by dissolving the 4-amino-6-chloro-1,3-benzenedisulfonamide in the solvent of choice, which should be purged with an inert gas. 4-Amino-6-chloro-1,3-benzenedisulfonamide is soluble in DMSO and dimethyl formamide (DMF), and is slightly soluble in ethanol. The solubility of 4-amino-6-chloro-1,3-benzenedisulfonamide in DMSO and DMF is approximately 30 mg/ml.

4-Amino-6-chloro-1,3-benzenedisulfonamide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 4-amino-6-chloro-1,3-benzenedisulfonamide should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 4-Amino-6-chloro-1,3-benzenedisulfonamide has a solubility of approximately 0.20 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

4-Amino-6-chloro-1,3-benzenedisulfonamide is a carbonic anhydrase inhibitor.¹ Formulations containing this compound are diuretics.² 4-Amino-6-chloro-1,3-benzenedisulfonamide is detected as a hydrolysis product of chlorothiazide (Item No. 17909) in the urine.² Diuretics, including chlorothiazide, have been abused as performance-enhancing drugs and masking agents in sports doping.³

References

1. Nishimori, I., Vullo, D., Minakuchi, T., *et al.* Carbonic anhydrase inhibitors: Cloning and sulfonamide inhibition studies of a carboxyterminal truncated α -carbonic anhydrase from *Helicobacter pylori*. *Bioorg. Med. Chem. Lett.* **16(8)**, 2182-2188 (2006).
2. Deventer, K., Pozo, O.J., Van Eenoo, P., *et al.* Detection of urinary markers for thiazide diuretics after oral administration of hydrochlorothiazide and altizide-relevance to doping control analysis. *J. Chromatogr. A* **1216(12)**, 2466-2473 (2009).
3. Cadwallader, A.B., de la Torre, X., Tieri, A., *et al.* The abuse of diuretics as performance-enhancing drugs and masking agents in sport doping: Pharmacology, toxicology and analysis. *Br. J. Pharmacol.* **161(1)**, 1-16 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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