

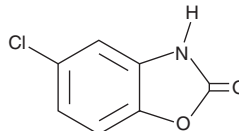
PRODUCT INFORMATION



Chlorzoxazone

Item No. 18869

CAS Registry No.: 95-25-0
Formal Name: 5-chloro-2(3H)-benzoxazolone
Synonym: NSC 26189
MF: C₇H₄ClNO₂
FW: 169.6
Purity: ≥98%
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

Chlorzoxazone is supplied as a crystalline solid. A stock solution may be made by dissolving the chlorzoxazone in the solvent of choice, which should be purged with an inert gas. Chlorzoxazone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of chlorzoxazone in these solvents is approximately 20, 10, and 16 mg/ml, respectively.

Chlorzoxazone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, chlorzoxazone should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Chlorzoxazone has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Chlorzoxazone is a centrally acting muscle relaxant and activator of small and intermediate conductance calcium-activated potassium channels (EC₅₀s = 87 and 98 μM for K_{Ca}2.2 and K_{Ca}3.1, respectively).^{1,2} *In vivo*, chlorzoxazone (10 mg/kg) decreases alcohol but not water intake in a dose-dependent manner and reduces the propensity for rapid initial alcohol intake in rats with intermittent, but not continuous, access to alcohol.³ Formulations containing chlorzoxazone have been used in the treatment of pain and stiffness caused by muscle spasm. This product is also available as an analytical reference standard (Item No. 25826).

References

1. Pedarzani, P. and Stocker, M. Molecular and cellular basis of small- and intermediate-conductance, calcium-activated potassium channel function in the brain. *Cell. Mol. Life Sci.* **65(20)**, 3196-3217 (2008).
2. Gao, Z., Todorov, B., Barrett, C.F., *et al.* Cerebellar ataxia by enhanced Ca_v2.1 currents is alleviated by Ca²⁺-dependent K⁺-channel activators in Cacna1a^{S218L} mutant mice. *J. Neurosci.* **32(44)**, 15533-15546 (2012).
3. Hopf, F.W., Simms, J.A., Chang, S.J., *et al.* Chlorzoxazone, an SK-type potassium channel activator used in humans, reduces excessive alcohol intake in rats. *Biol. Psychiatry* **69(7)**, 618-624 (2011).

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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