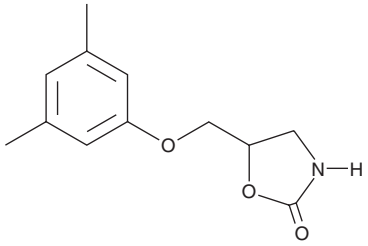
PRODUCT INFORMATION

Metaxalone

Item No. 15777

CAS Registry No.:	1665-48-1
Formal Name:	5-[(3,5-dimethylphenoxy)methyl]-2-oxazolidinone
Synonyms:	AHR 438, NSC 170959
MF:	$C_{12}H_{15}NO_3$
FW:	221.3
Purity:	≥95%
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

Metaxalone is supplied as a crystalline solid. A stock solution may be made by dissolving the metaxalone in the solvent of choice, which should be purged with an inert gas. Metaxalone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of metaxalone in these solvents is approximately 10, 20, and 30 mg/ml, respectively.

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

Description

Metaxalone is a skeletal muscle relaxant.[1,2] It inhibits the proliferation of, and induces apoptosis in, RAW 264.7 cells *in vitro* when used at concentrations ranging from 1 to 100 µM.[2] Metaxalone also reduces LPS-induced increases in COX-1, COX-2, and NF-kB levels and inhibits LPS-induced production of TNF-α, IL-6, and prostaglandin E_2 (PGE_2; Item No. 14010) in RAW 264.7 cells. Formulations containing metaxalone have been used in the treatment of lower back pain.

References

1. Chou, R., Peterson, K., and Helfand, M. Comparative efficacy and safety of skeletal muscle relaxants for spasticity and musculoskeletal conditions: A systematic review. *J. Pain Symptom Manage.* **28(2)**, 140-175 (2004).
2. Yamaguchi, M. and Levy, R.M. Metaxalone suppresses production of inflammatory cytokines associated with painful conditions in mouse macrophages RAW264.7 cells *in vitro*: Synergistic effect with β-caryophyllene. *Curr. Mol. Med.* **20(8)**, 643-652 (2020).

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