

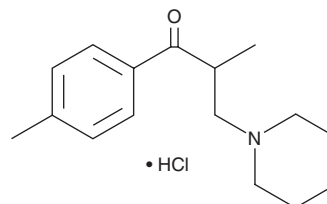
PRODUCT INFORMATION



Tolperisone (hydrochloride)

Item No. 26078

CAS Registry No.: 3644-61-9
Formal Name: 2-methyl-1-(4-methylphenyl)-3-(1-piperidinyl)-1-propanone, monohydrochloride
Synonym: N-553
MF: C₁₆H₂₃NO • HCl
FW: 281.8
Purity: ≥98%
UV/Vis.: λ_{max}: 257 nm
Supplied as: A crystalline solid
Storage: 4°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Tolperisone (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the tolperisone (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Tolperisone (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of tolperisone (hydrochloride) in these solvents is approximately 20, 10, and 2 mg/ml, respectively.

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 tolperisone (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of tolperisone (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Tolperisone is a piperidine that acts as an inhibitor of voltage-gated sodium channels with an IC₅₀ value of 198 μM, for inhibition of peak sodium currents evoked by step depolarizations in dorsal root ganglion (DRG) neurons, *in vitro*.¹ Tolperisone acts as an antispastic agent that attenuates monosynaptic, disynaptic, and polysynaptic reflex response to dorsal root stimulation *in vivo*. Formulations containing tolperisone are used as analgesics and muscle relaxants.

Reference

1. Kocsis, P., Farkas, S., Fodor, L., *et al.* Tolperisone-type drugs inhibit spinal reflexes via blockade of voltage-gated sodium and calcium channels. *J. Pharmacol. Exp. Ther.* **315**(3), 1237-1246 (2005).

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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