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DATASHEET

Loperamide hydrochloride

Product overview

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|--------------------------|--|
| Name | Loperamide hydrochloride |
| Cat No | HB0385 |
| Biological action | Agonist |
| Purity | >99% |
| Description | Potent, selective μ -opioid receptor agonist |

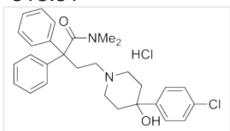
Biological Data

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|-------------------------------|---|
| Biological description | Potent and selective μ -opioid receptor agonist (K_i values are 3, 48 and 1156 nM for μ , δ and κ). Blocks voltage-activated calcium channels and also NMDA receptor Ca^{2+} influx at higher concentrations. Shows antidiarrheal and antihyperalgesic actions. |
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Solubility & Handling

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|-----------------------------|---|
| Storage instructions | Room temperature |
| Solubility overview | Soluble in ethanol (50mM) or DMSO (50mM) |
| Important | This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use. |

Chemical Data

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|---------------------------|--|
| Chemical name | 4-(4-Chlorophenyl)-4-hydroxy-N,N-dimethyl- α,α -diphenyl-1-piperidinebutanamidehydrochloride |
| Molecular Weight | 513.51 |
| Chemical structure |  |
| Molecular Formula | $C_{29}H_{33}ClN_2O_2 \cdot HCl$ |
| CAS Number | 34552-83-5 |
| PubChem identifier | 71420 |
| SMILES | <chem>Cl.CN(C)C(=O)C(CCN1CCC(O)(CC1)C1=CC=C(Cl)C=C1)(C1=CC=CC=C1)C1=CC=CC=C1</chem> |
| InChiKey | PGYPOBZJRVSMDS-UHFFFAOYSA-N |

References

Loperamide (ADL 2-1294), an opioid antihyperalgesic agent with peripheral selectivity.

DeHaven-Hudkins DL *et al* (1999) J Pharmacol Exp Ther 289(1)

PubMedID [10087042](#)

Loperamide blocks high-voltage-activated calcium channels and N-methyl-D-aspartate-evoked responses in rat and mouse cultured hippocampal pyramidal neurons.

Church J *et al* (1994) Mol Pharmacol 45(4)

PubMedID

8183255

Maitotoxin-elicited calcium influx in cultured cells. Effect of calcium-channel blockers.

Daly JW *et al* (1995) *Biochem Pharmacol* 50(8)

PubMedID

7488233
