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DATASHEET

Diphenhydramine hydrochloride (DPH)

Product overview

Name	Diphenhydramine hydrochloride (DPH)
Cat No	HB2617
Biological action	Activator
Purity	>99%
Description	Histamine H ₁ antagonist. Potent actuator of a modified hM4Di "GRANPA" DREADD receptor.

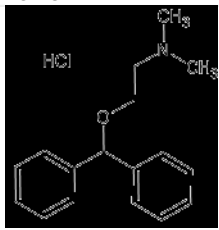
Biological Data

Biological description	Histamine H ₁ antagonist. Potently activates the modified hM4Di "GRANPA" (G protein Receptor Activated by Non-Prescription Agents) DREADD receptor in vitro and in vivo.
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Solubility & Handling

Storage instructions	Room temperature, desiccate.
Solubility overview	Soluble in water (100 mM)
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

Chemical name	2-Diphenylmethoxy-N,N-dimethylethanamine hydrochloride
Molecular Weight	291.82
Chemical structure	 The chemical structure shows a central carbon atom bonded to two phenyl rings and a methoxy group (-OCH ₂ -). The methoxy group is further connected to a dimethylamino group (-N(CH ₃) ₂). A hydrochloride (HCl) salt is indicated.
Molecular Formula	C ₁₇ H ₂₁ NO.HCl
CAS Number	147-24-0
PubChem identifier	8980
SMILES	CN(C)CCOC(C1=CC=CC=C1)C2=CC=CC=C2.Cl
InChi	InChI=1S/C17H21NO.ClH/c1-18(2)13-14-19-17(15-9-5-3-6-10-15)16-11-7-4-8-12-16;/h3-12,17H,13-14H2,1-2H3;1H
InChiKey	PCHPORCSPXIHLZ-UHFFFAOYSA-N
MDL number	MFCD00012479
Appearance	White solid

References

Improving the suitability of chemogenetic gene therapies by repurposing non-prescription agents as actuators

Devenish et al (2022) Ucl Neuroscience Symposium 2022

Classic histamine H1 receptor antagonists: a critical review of their metabolic and pharmacokinetic fate from a bird's eye view.

Sharma A et al (2003) Current drug metabolism 4

PubMedID

12678691
