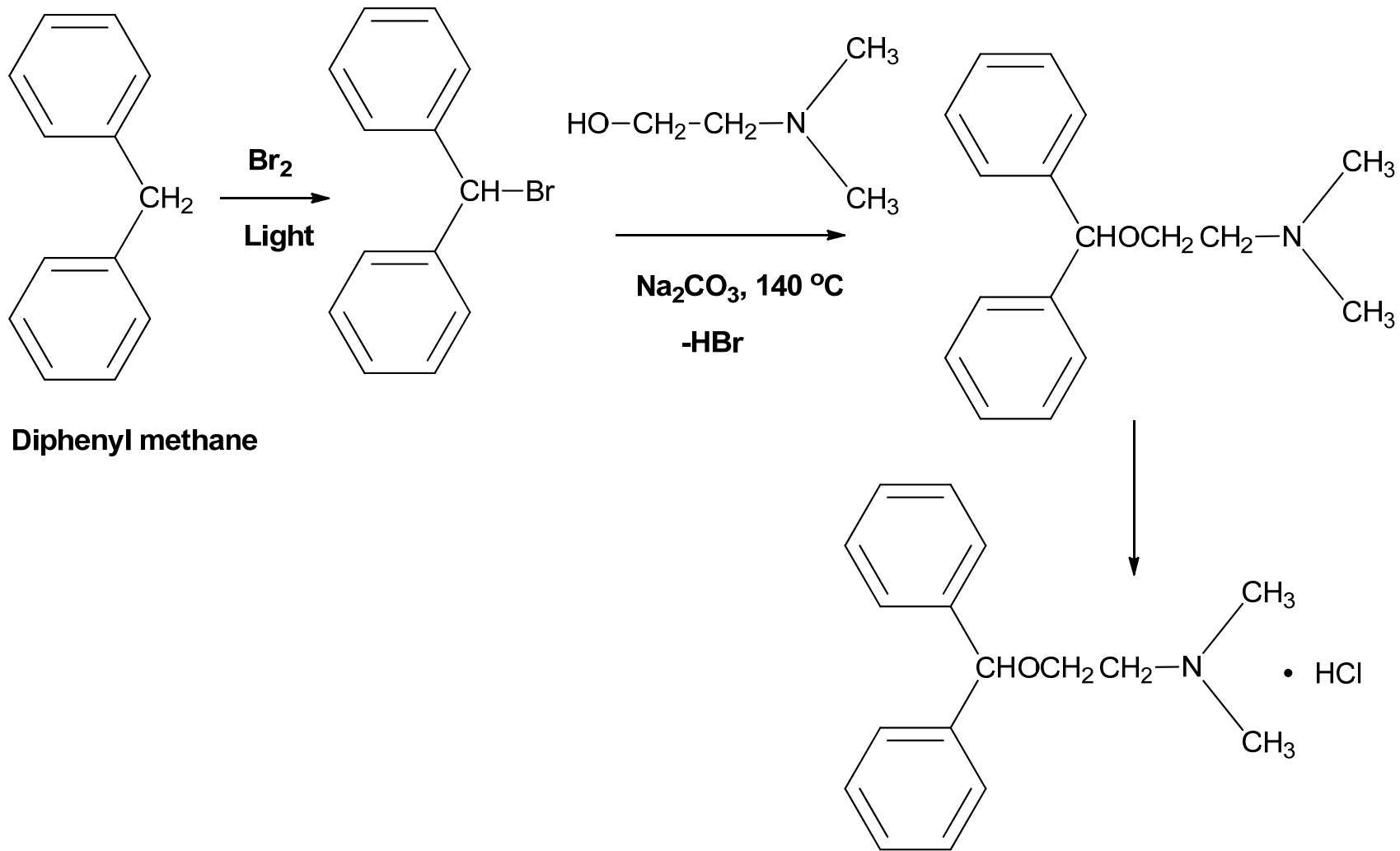


Diphenhydramine



Mechanism of action

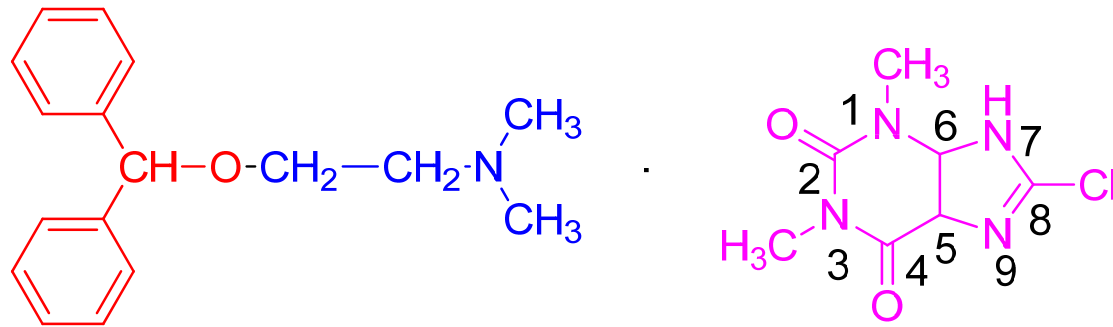
○ Diphenhydramine predominantly works via the antagonism of H₁ (Histamine 1) receptors . It reverses the effects of histamine on blood capillaries, reducing allergic reaction symptoms .

○ Moreover, it readily crosses the blood-brain barrier and inversely agonizes the H₁ CNS receptors, resulting in drowsiness, and suppress the medullary cough center.

○ Furthermore, diphenhydramine also acts as an antimuscarinic . It behave as a competitive antagonist of muscarinic acetylcholine receptors, resulting in its use as an antiparkinson medication.

Uses: Indicated for use in treating sneezing, runny nose, itchy/watery eyes, itching of nose or throat, insomnia, pruritis, urticaria, insect bites/stings, allergic rashes, and nausea

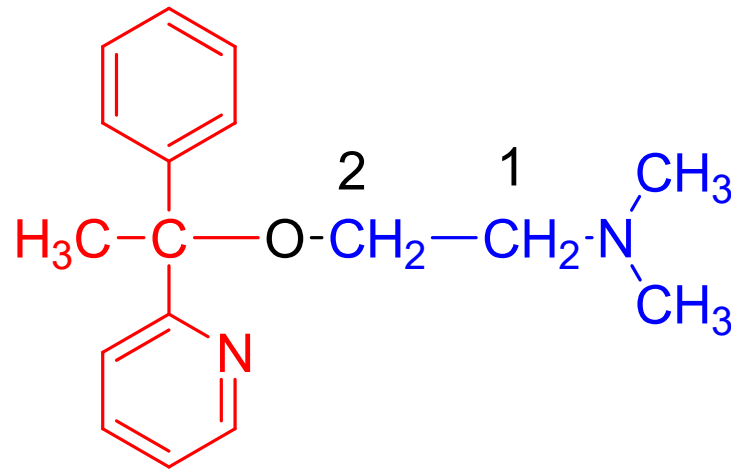
Dimenhydrinate



MOA: Dimenhydrinate is a competitive antagonist at the histamine H1 receptor, which is widely distributed in the human brain. Dimenhydrinate's anti-emetic effect is probably due to H1 antagonism in the vestibular system in the brain.

Uses: Dimenhydrinate is indicated for the prevention and treatment of nausea, vomiting, or vertigo of motion sickness.

Doxylamines Succinate

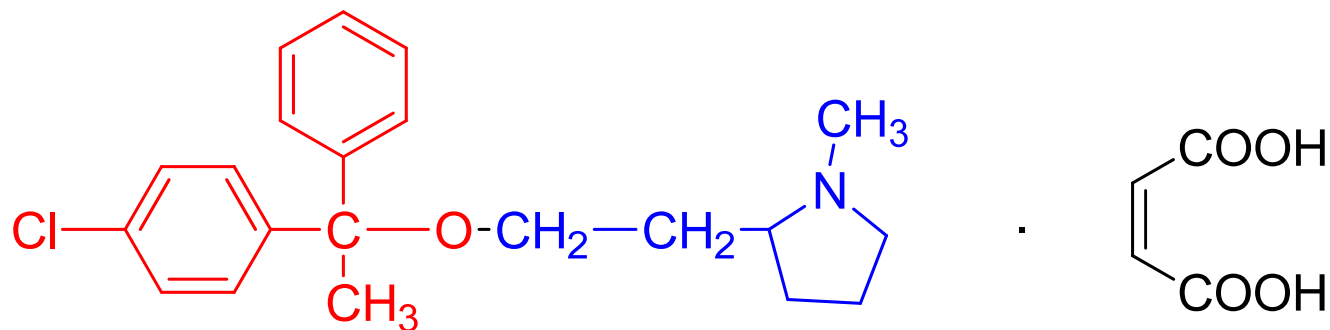


IUPAC: *N,N*-dimethyl-2-(1-phenyl-1-pyridin-2-ylethoxy) ethanamine

MOA: Dimenhydrinate is a competitive antagonist at the histamine H₁ receptor. It has pronounced sedative properties.

Uses: It is used in allergies and as an antitussive, antiemetic, and hypnotic.

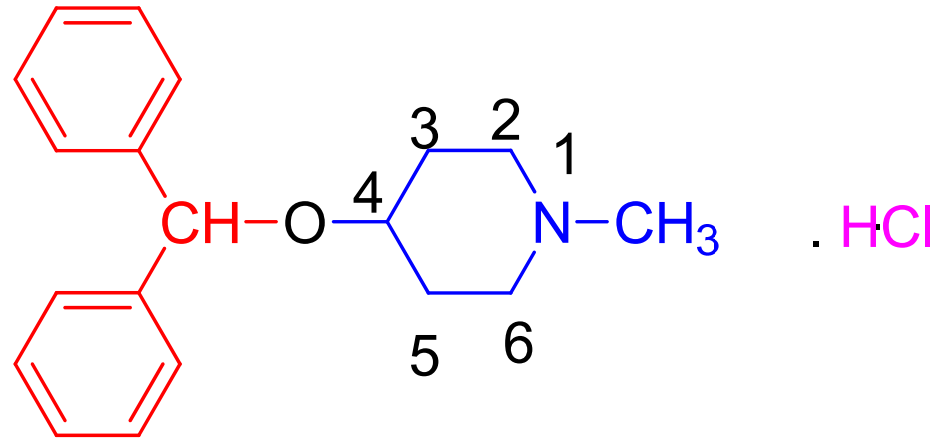
Clemastine fumarate



MOA: It works via the antagonism of H₁ (Histamine 1) receptors . It reverses the effects of histamine on blood capillaries and reduces allergic reaction symptoms.

Uses: Used in hay fever, rhinitis, allergic skin conditions, and pruritus. It causes drowsiness.

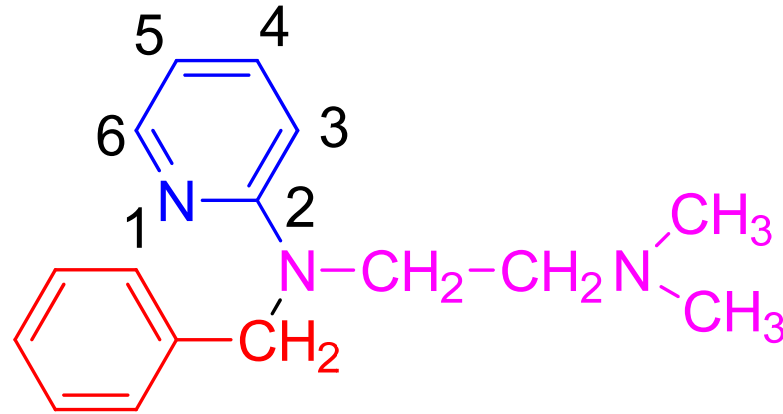
Diphenylpyraline hydrochloride



MOA: It works via the antagonism of H₁ (Histamine 1) receptors . It reverses the effects of histamine on blood capillaries and reduces allergic reaction symptoms.

Uses: allergic rhinitis, hay fever, and allergic skin disorders.

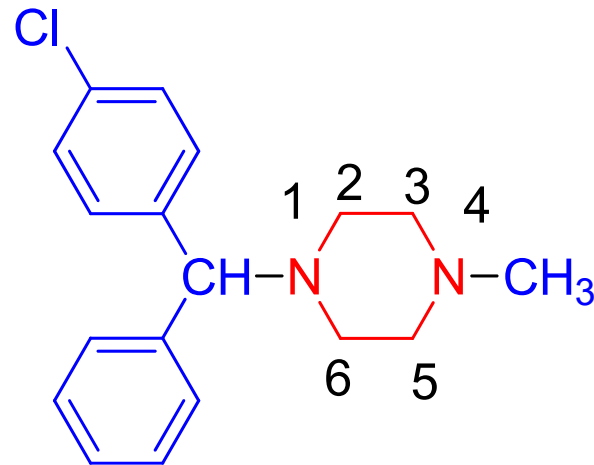
Tripelennamine



MOA: Tripelennamine binds to the histamine H₁ receptor. This blocks the action of endogenous histamine, which subsequently leads to temporary relief of the negative symptoms brought on by histamine.

Uses: Used for the symptomatic relief of hypersensitivity reactions, coughs, and the common cold.

Chlorcyclizine hydrochloride

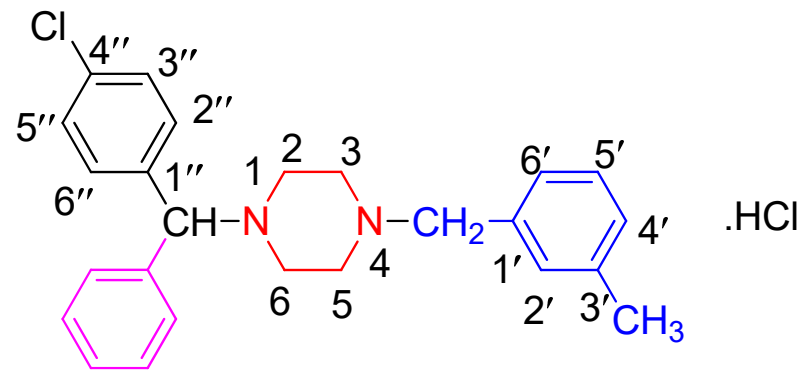


MOA: It works via the antagonism of H₁ (Histamine 1) receptors . It reverses the effects of histamine on blood capillaries and reduces allergic reaction symptoms.

Chlorcyclizine also has some local anesthetic, anticholinergic, and antiserotonergic properties, and can be used as an antiemetic.

Uses: used to treat urticaria, rhinitis, pruritus, and other allergy symptoms.

Meclizine hydrochloride



MOA: Meclizine is a histamine H₁ antagonist with antiemetic and antiverigo properties. It also exhibits anticholinergic, central nervous system depressant, and local anesthetic effects.

Uses: It is used in the symptomatic treatment of motion sickness and control of vertigo associated with vestibular system diseases.