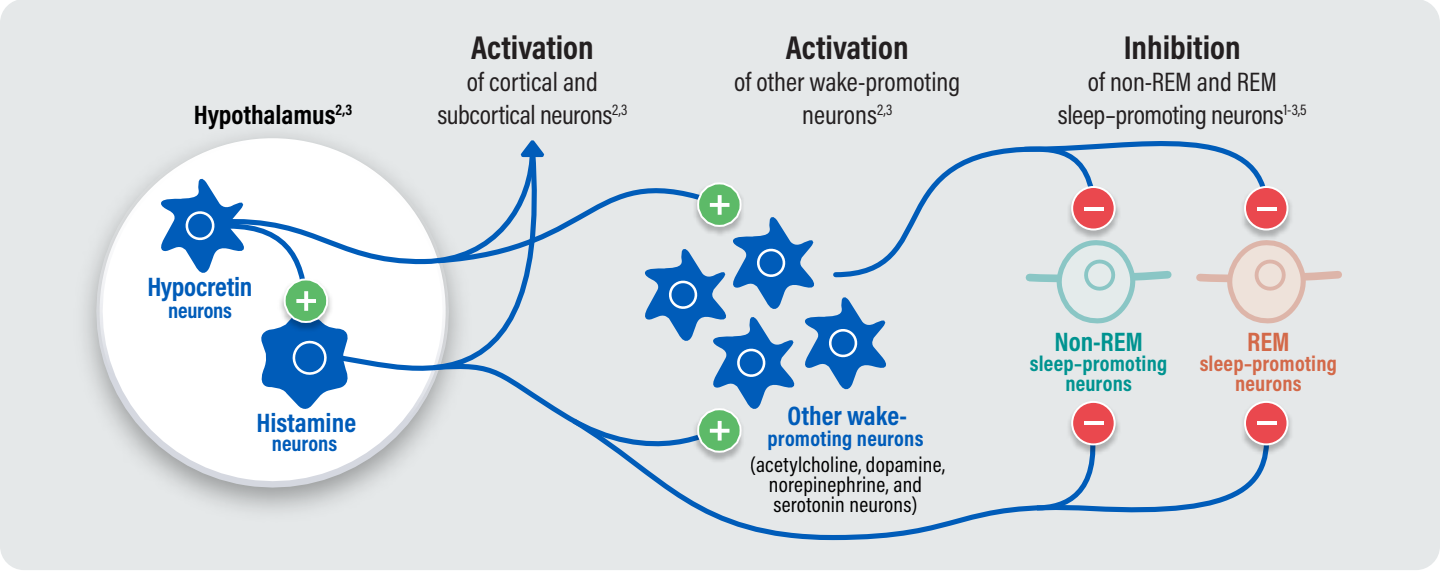
Histamine Plays an Important Role in Promoting and Stabilizing Wakefulness[1-3]

In the brain, hypocretin (orexin) and histamine neurons play complementary roles[4]

- Hypocretin and histamine promote wakefulness by activating the cortex and wake-promoting neurons[2,3]
- Hypocretin and histamine help stabilize wakefulness by inhibiting sleep-promoting neurons (non-REM and REM)[1-3]



In the brain, histamine acts as a key wake-promoting neurotransmitter[1,6]

- Histamine is synthesized in the presynaptic neuron[1]
- When released into the synapse, histamine binds to postsynaptic H_1 receptors[1]

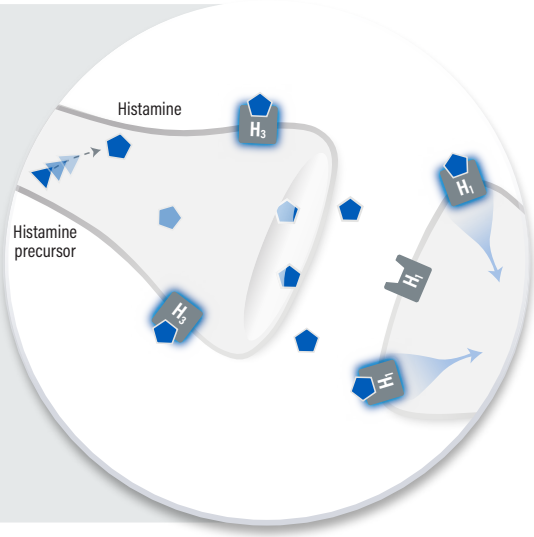
H_1 and H_3 receptors modulate histamine neuronal activity in the brain[1]

H_3 H_3 receptors are found primarily in the brain and help regulate histamine synthesis and release[1,7-9]

- Normally, when synaptic histamine levels are high, histamine binds to H_3 autoreceptors to inhibit further synthesis and release of histamine in the brain[1,7]

H_1 H_1 receptors increase neuronal activity, which allows for communication with important brain regions for sleep and wakefulness[1,2,7]

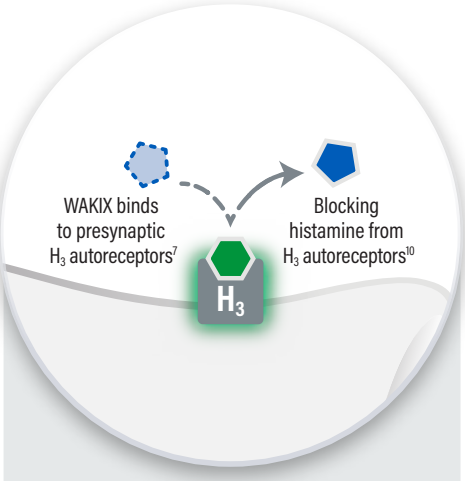
H_1, histamine 1; H_3, histamine 3.



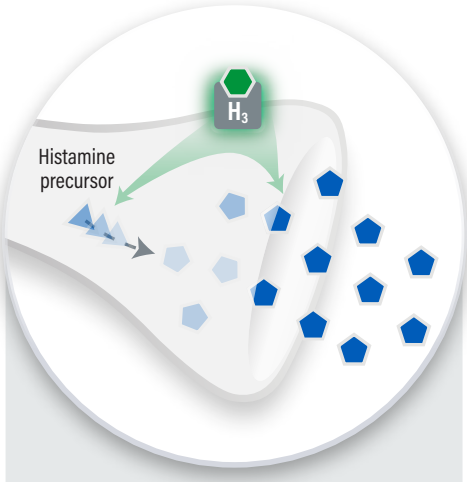
WAKIX Has a Different Mechanism of Action

Wakix® pitolisant tablets

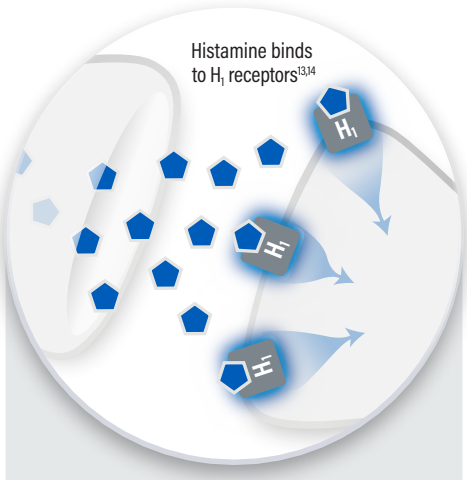
The mechanism of action (MOA) of WAKIX in EDS or cataplexy in adult patients with narcolepsy is unclear; however, its efficacy could be mediated through its activity as an antagonist/inverse agonist at histamine 3 (H_3) receptors, which results in increased histamine levels in the brain.



WAKIX Blocks Histamine From Binding to Presynaptic H_3 Autoreceptors[7,10,11]



WAKIX Increases Histamine Synthesis and Release[7,11,12]



Histamine Binds to H_1 Receptors, Which Increases Communication to Neurons in Brain Regions Important for Sleep and Wakefulness[13,14]

Indications and Usage

- WAKIX is indicated for the treatment of excessive daytime sleepiness (EDS) or cataplexy in adult patients with narcolepsy.

Important Safety Information

Contraindications

- WAKIX is contraindicated in patients with known hypersensitivity to pitolisant or any component of the formulation. Anaphylaxis has been reported. WAKIX is also contraindicated in patients with severe hepatic impairment.

Warnings and Precautions

- WAKIX prolongs the QT interval; avoid use of WAKIX in patients with known QT prolongation or in combination with other drugs known to prolong the QT interval. Avoid use in patients with a history of cardiac arrhythmias, as well as other circumstances that may increase the risk of the occurrence of torsade de pointes or sudden death, including symptomatic bradycardia, hypokalemia or hypomagnesemia, and the presence of congenital prolongation of the QT interval.
- The risk of QT prolongation may be greater in patients with hepatic or renal impairment due to higher concentrations of pitolisant; monitor these patients for increased QTc. Dosage modification is recommended in patients with moderate hepatic impairment and moderate or severe renal impairment (see full prescribing information). WAKIX is not recommended in patients with end-stage renal disease (ESRD).

Adverse Reactions

- In the placebo-controlled clinical trials conducted in patients with narcolepsy with or without cataplexy, the most common adverse reactions (≥5% and at least twice placebo) for WAKIX were insomnia (6%), nausea (6%), and anxiety (5%). Other adverse reactions that occurred at ≥2% and more frequently than in patients treated with placebo included headache, upper respiratory tract infection, musculoskeletal pain, heart rate increased, hallucinations, irritability, abdominal pain, sleep disturbance, decreased appetite, cataplexy, dry mouth, and rash.

Please see Important Safety Information continued on next page and accompanying Full Prescribing Information.

NON-STIMULANT

Wakix® pitolisant tablets

Why WAKIX?

- **Different mechanism of action**
- **Not a controlled substance**
- **Evaluated in multiple clinical studies and FDA approved in 2019**
- **Treats both excessive daytime sleepiness (EDS) and cataplexy in adults with narcolepsy with once-daily morning dosing**
- **Established safety and tolerability profile in clinical studies**

Important Safety Information

Drug Interactions

- Concomitant administration of WAKIX with strong CYP2D6 inhibitors increases pitolisant exposure by 2.2-fold. Reduce the dose of WAKIX by half.
- Concomitant use of WAKIX with strong CYP3A4 inducers decreases exposure of pitolisant by 50%. Dosage adjustments may be required (see full prescribing information).
- H_1 receptor antagonists that cross the blood-brain barrier may reduce the effectiveness of WAKIX. Patients should avoid centrally acting H_1 receptor antagonists.
- WAKIX is a borderline/weak inducer of CYP3A4. Therefore, reduced effectiveness of sensitive CYP3A4 substrates may occur when used concomitantly with WAKIX. The effectiveness of hormonal contraceptives may be reduced when used with WAKIX and effectiveness may be reduced for 21 days after discontinuation of therapy.

Use in Specific Populations

- WAKIX may reduce the effectiveness of hormonal contraceptives. Patients using hormonal contraception should be advised to use an alternative non-hormonal contraceptive method during treatment with WAKIX and for at least 21 days after discontinuing treatment.
- There is a pregnancy exposure registry that monitors pregnancy outcomes in women who are exposed to WAKIX during pregnancy. Patients should be encouraged to enroll in the WAKIX pregnancy registry if they become pregnant. To enroll or obtain information from the registry, patients can call 1-800-833-7460.
- The safety and effectiveness of WAKIX have not been established in patients less than 18 years of age.
- WAKIX is extensively metabolized by the liver. WAKIX is contraindicated in patients with severe hepatic impairment. Dosage adjustment is required in patients with moderate hepatic impairment.
- WAKIX is not recommended in patients with end-stage renal disease. Dosage adjustment of WAKIX is recommended in patients with moderate or severe renal impairment.
- Dosage reduction is recommended in patients known to be poor CYP2D6 metabolizers; these patients have higher concentrations of WAKIX than normal CYP2D6 metabolizers.

To report suspected adverse reactions, contact Harmony Biosciences at 1-800-833-7460 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

Watch a video about the MOA of WAKIX at **WAKIXhcp.com**

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HARMONY BIOSCIENCES

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