

# A review of the pharmacological and therapeutic effects of auraptene

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There is a growing awareness in herbal medications as they are usually safe and devoid of significant adverse effects. Auraptene is a natural bioactive monoterpene coumarin ether and is consumed all over the world. There is growing evidence of the therapeutic benefits of auraptene. Auraptene, also known as auraptene and 7-geranyloxycoumarin, is a bioactive monoterpene coumarin from Rutaceae family, which is isolated from *Citrus aurantium* (Seville orange) and *Aegle marmelos* (bael fruit). Auraptene is a highly pleiotropic molecule, which can modulate intracellular signaling pathways that control inflammation, cell growth, and apoptosis. It has a potential therapeutic role in the prevention and treatment of various diseases due to its anti-inflammatory and antioxidant activities as well as its excellent safety profile. In the present article, various pharmacological and therapeutic effects of auraptene were reviewed. Different online databases using keywords such as auraptene, therapeutic effects and pharmacological effects were searched until the end of September 2018, for this purpose. Auraptene has been suggested to be effective in the treatment of a broad range of disorders including inflammatory disorders, dysentery, wounds, scars, keloids, and pain. In addition, different studies have demonstrated that auraptene possesses numerous pharmacological properties including anti-inflammatory, anti-oxidative, anti-diabetic, anti-hypertensive and anti-cancer as well as neuroprotective effects. The present review provides a detailed survey of scientific researches regarding pharmacological properties and therapeutic effects of auraptene. © 2019 International Union of Biochemistry and Molecular Biology

auraptene

chemopreventive

pharmacological properties

auraptene

cisplatin

fluorouracil

nifedipine

paclitaxel

antiinflammatory agent

auraptene

coumarin

coumarin derivative

aberrant crypt focus

Aegle marmelos

antidiabetic activity

antihypertensive activity

antiinflammatory activity

antineoplastic activity

antioxidant activity

apoptosis

cardiovascular system

cell growth

cell viability

cholestasis

data base

drug cytotoxicity

drug effect

drug efficacy

drug potentiation

drug safety

dysentery

G2 phase cell cycle checkpoint

gastrointestinal tract

human

immune system

inflammatory disease

intracellular signaling

liver injury

malignant neoplasm

Medline

mild cognitive impairment

nervous system

neuroprotection

nonhuman

pain

priority journal

Review

Rutaceae

scar

Scopus

sour orange

Web of Science

wound

Aegle

cell proliferation

chemistry

Citrus

inflammation

signal transduction

Aegle

Anti-Inflammatory Agents

Apoptosis

Cell Proliferation

Citrus

Coumarins

Humans

Inflammation

Signal Transduction