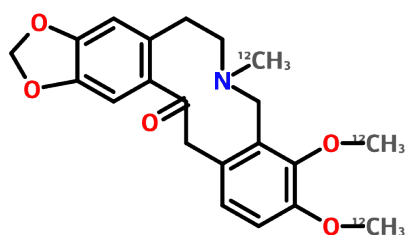
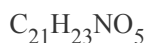


α -Allocryptopine



Protopine

β -Homochelidonine; α -Fagarine



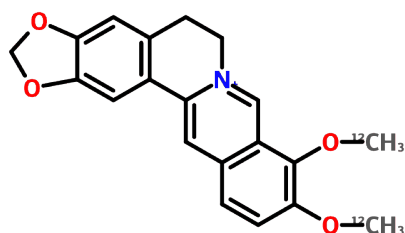
[485-91-6]

Mol. wt 369.42

Occurs occasionally in combination with β -stereoisomer [24240-04-8], in a great many Papaveraceae genera; *Bocconia*, *Chelidonium*, *Corydalis*, *Dicentra*, *Eschsholtzia*, *Glaucium*, and *Sanguinaria* spp. and, exceptionally, in *Zanthoxylum* spp. (Rutaceae).

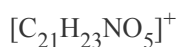
Oxytoxic agent.

Berberine



Protoberberine

Umbellatine



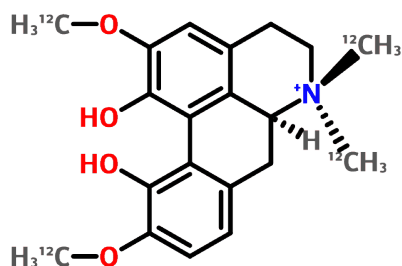
[2086-83-1]

Mol. wt 336.37

Found in many plant families, including Annonaceae *Coelocline* spp., Berberidaceae *Berberis* spp., *Mahonia* spp., *Nandina* spp., Menispermaceae *Archangelisia* spp., Papaveraceae *Argemone* spp., *Chelidonium* spp., *Corydalis* spp., Rutaceae *Evodia* spp., *Toddalia* spp., *Zanthoxylum* spp., and Ranunculaceae *Coptis* spp., *Thalictrum* spp.. It is the yellow pigment in the stem bark and leaves of the common barberry, *Berberis vulgaris*.

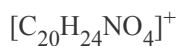
Moderately toxic (LD50 in humans 27.5 mg/kg body-weight), causing cardiac damage, dyspnoea, and lowered blood pressure; it is used as a bitter stomachic, antimalarial, antimicrobial, antipyretic, anthelmintic and cytotoxic agent.

Magnoflorine



Aporphine

Thalictrine; Escholine



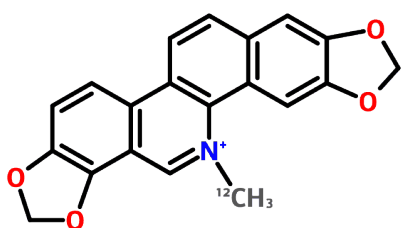
[2141-09-5]

Mol. wt 342.41

The most widespread aporphine alkaloid, found in many Papaveraceae and Fumariaceae species, e.g., *Argemone* spp., *Papaver* spp., *Eschscholzia* spp., *Glaucium* spp., *Meconopsis* spp., *Dicranostigma* spp., *Chelidonium* spp. and *Corydalis* spp.; it is also found in *Magnolia grandiflora* (Magnoliaceae), most *Zanthoxylum* spp. (Rutaceae), *Thalictrum thynbergii* (Ranunculaceae), *Aristolochia thunbergii* (Aristolochiaceae), and *Croton comingii* (Euphorbiaceae).

Weak neuromuscular blocking agent. It is hypotensive in rodents.

Sanguinarine



Benzophenanthridine

Pseudochelerythrine



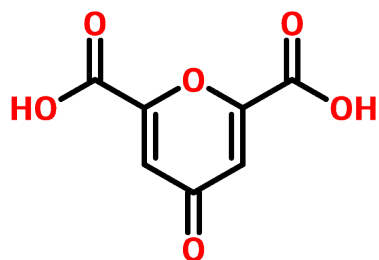
[2447-54-3]

Mol. wt 332.34

Widespread occurrence in Papaveraceae, including opium from *Papaver somniferum*, *Dicentra spectabilis*, *D. peregrina* and *Chelidonium majus*, and in the Fumariaceae, including bloodroot, *Sanguinaria canadensis*, and fumitory, *Fumaria officinalis*. It is also found in *Zanthoxylum* spp. (Rutaceae), and *Pteridophyllum* spp. (Sapindaceae).

Antibacterial, cytotoxic, and anti-inflammatory. A major use is in dentrifices and mouthwashes because of antiplaque activity. It has a positive inotropic effect on the heart. It inhibits various enzymes including ATP-ase, diamine oxidase and some aminotransferases. It causes glaucoma at high doses over a prolonged period. Also it is toxic (LD₅₀ in mice 19.4 mg/kg body-weight).

Chelidonic acid



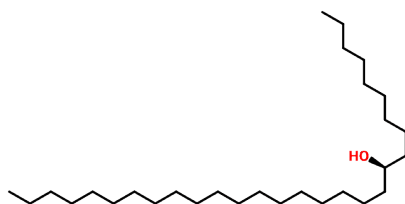
$C_7H_6O_5$

[99-31-1]

Mol. wt 184.11

Occurs in *Chelidonium majus* (Papaveraceae), and is widespread in plants of the Amaryllidaceae, Liliaceae and Papaveraceae.

Nonacosan-10-ol



Celidoniol; Ginnol

$C_{29}H_{60}O$

[2606-50-0]

Mol. wt 424.79

A common leaf wax hydrocarbon alcohol, e.g., from *Ginkgo biloba* (Ginkgoaceae), *Chelidonium majus* (Papaveraceae) and *Juniperus chinensis* (Cupressaceae).