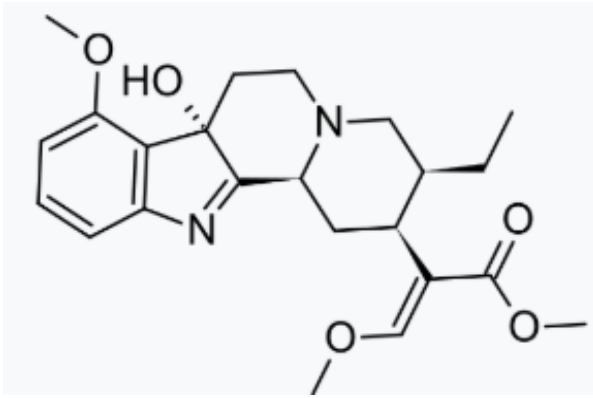
SB497

The KBI Laboratory's Perspective

02/12/2026

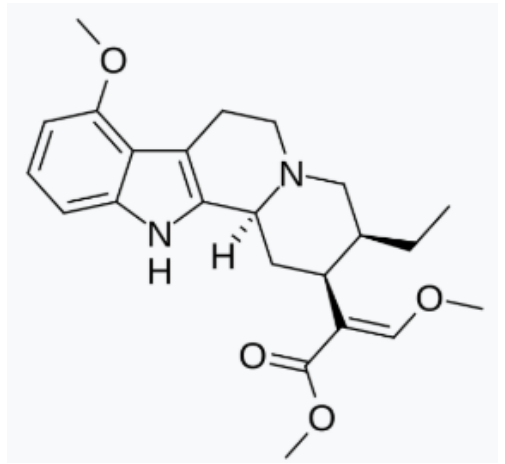
7-Hydroxymitragynine

- 7-OH (aka 7-hydroxymitragynine)
  - Potent opioid agonist found in low levels in kratom*
  - Also a psychoactive metabolite of mitragynine, the major alkaloid in kratom**



7-hydroxymitragynine (7-OH)

Mitragyna speciosa ***



Mitragynine

*Váradi A, Marrone GF, Palmer TC, Narayan A, Szabó MR, Le Rouzic V, Grinnell SG, Subrath JJ, Warner E, Kalra S, Hunkele A, Pagirsky J, Eans SO, Medina JM, Xu J, Pan YX, Borics A, Pasternak GW, McLaughlin JP, Majumdar S. Mitragynine/Corynantheidine Pseudoindoxyls As Opioid Analgesics with Mu Agonism and Delta Antagonism, Which Do Not Recruit β-Arrestin-2. J Med Chem. 2016 Sep 22;59(18):8381-97. doi: 10.1021/acs.jmedchem.6b00748. Epub 2016 Sep 2. PMID: 27556704; PMCID: PMC5344672.

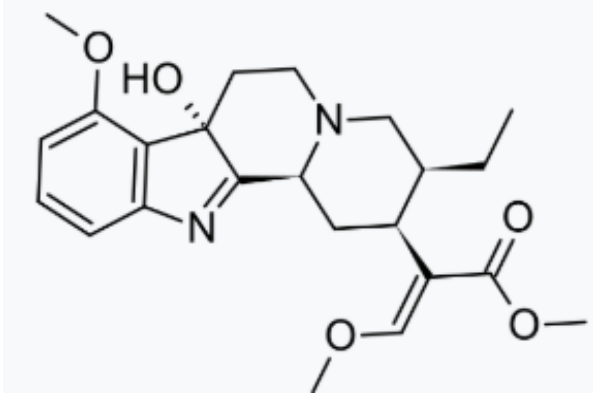
** https://www.fda.gov/files/drugs/published/7-hydroxymitragynin_7-oh_an_assessment_of_the_scientific_data_and_toxicological_concerns_around_an_emerging_opioid_threat.pdf

***https://en.wikipedia.org/wiki/Mitragyna_speciosa

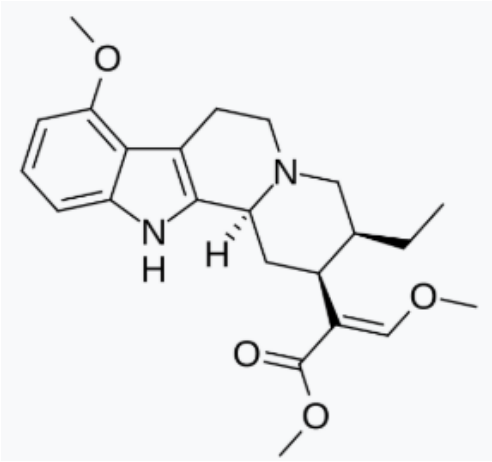
7-Hydroxymitragynine

- 7-OH (aka 7-hydroxymitragynine)
  - July 29th 2025 the FDA provided a recommendation to the DEA to perform scheduling actions to control 7-hydroxymitragynine (7-OH) *
  - July 29th 2025 the FDA published "7-Hydroxymitragynine (7-OH): An Assessment of the Scientific Data and Toxicological Concerns Around an Emerging Opioid Threat**

> The pharmacological profile, abuse liability, and emerging patterns of non-medical use establish 7-OH as a dangerous substance. Current regulatory gaps have enabled widespread availability of these products despite their opioid-like properties and necessitate immediate policy intervention to address this emerging threat to American public health.



7-hydroxymitragynine (7-OH)



Mitragynine

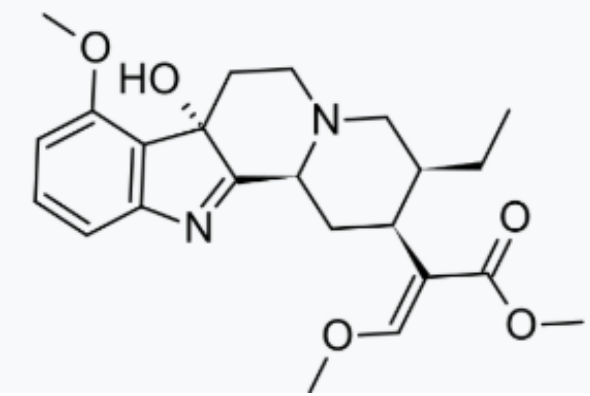
* https://www.fda.gov/news-events/press-announcements/fda-takes-steps-restrict-7-oh-opioid-products-threatening-american-consumers

** https://www.fda.gov/files/drugs/published/7-hydroxymitragynin_7-oh_an_assessment_of_the_scientific_data_and_toxicological_concerns_around_an_emerging_opioid_threat.pdf

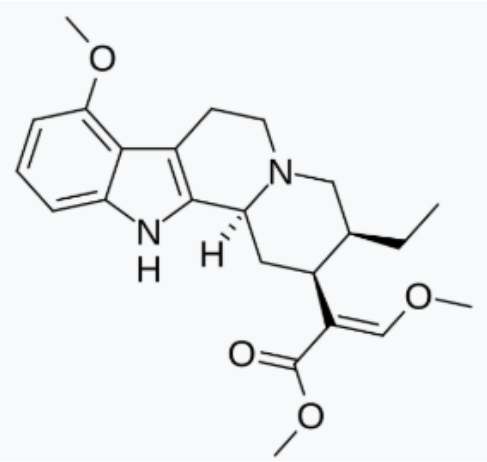
7-Hydroxymitragynine

- 7-OH (aka 7-hydroxymitragynine)
  - Sept 24th 2025 the KDHE Issues Warning on 7-Hydroxymitragynine (7-OH) Products*

"We are urging individuals to avoid using any products containing 7-OH," **Dr. Dereck Totten, KDHE Chief Medical Officer, said**. "It can be extremely harmful, even in small doses. Always consult with your healthcare provider before consuming any new supplements, and if you suspect an adverse reaction or overdose, seek medical attention immediately."



7-hydroxymitragynine (7-OH)



Mitragynine

* https://www.kdhe.ks.gov/m/newsflash/Home/Detail/1704

Kratom records in SUDORS

- Kansas data from SUDORS (CDC's State Unintentional Drug Overdose Reporting System) obtained from KDHE
- Limitation of data
  - Can be found in multidrug cases
  - “Cause of death” numbers mean that kratom or kratom chemicals are listed on the death certificate

	2020	2021	2022	2023
Kratom Detected	12	11	26	23
Kratom Cause of Death	10	11	25	21
Total Deaths – All Drugs	430	673	739	615

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* Data courtesy of the Kansas Department of Health and Environment department of Substance Use Disorder & Overdose Prevention

Thank you for your time and consideration!

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