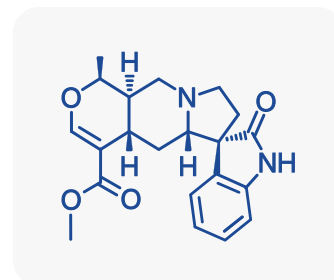


Anti-Mitraphylline rabbit recombinant monoclonal antibody



Mitraphylline is a main alkaloid present in *Mitragyna hirsuta* and *Mitragyna javanica*¹ often marketed as **KRATOM alternative**, whereas it is absent in *Mitragyna speciosa* (**KRATOM**). Some studies indicate anti-inflammatory, immunomodulatory, and potential anti-cancer effects². Mitraphylline is an opioid-active compound that binds to the μ -opioid receptor to produce morphine-like effects³, but its risk profile is not well established, and it may also interact with other substances. Mitraphylline is currently not regulated, whereas kratom itself is regulated or restricted in several regions. We offer ultra-high-affinity rabbit recombinant monoclonal antibodies against mitraphylline, likely the **first commercially available antibodies against this target**, available either as ready-to-use recombinant proteins (including BSA conjugate) or through licensing.



Antibody specification

Target
Mitraphylline

Immunogen
VLP-Mitraphylline

Target type
Small molecule

Clonality
Monoclonal

Isotype
IgG-Kappa 1

Class
Recombinant

Host
Rabbit

Conjugation
Upon request

Expression system
Mammalian

Purification
Protein A

Concentration
1 mg/ml

Storage buffer
PBS

Storage
Short term: +4°C
Long term: -80°C

Field
Drug of abuse

Applications

- Lateral flow assay
- CLIA
- ELISA

Conjugate specification

Conjugate
BSA-Mitraphylline

Concentration
1 mg/ml

Storage buffer
PBS

Storage
-20°C or below

Clone information

Clone #	Mitraphylline $K_D \pm SD$ (pM)	Mitragynine K_D
DB-202633	6.8 \pm 1.2	>1.5 μ M
DB-202634	3.8 \pm 1.2	>1.5 μ M
DB-202639	4.3 \pm 1.1	>1.5 μ M
DB-202641	79 \pm 13	>1.5 μ M
DB-202642	223 \pm 18	>1.5 μ M
DB-202650	6.0 \pm 1.3	>1.5 μ M
DB-202666	35 \pm 6	>1.5 μ M
DB-202667	8.4 \pm 2.5	>1.5 μ M
DB-202668	28 \pm 6	>1.5 μ M

Literature

1. University of Chemistry and Technology Prague. (2026). Forensic Laboratory of Biologically Active Substances (BAFA). UCT Prague.

2. Varlı, Múcahit, et al. "Strictosamide and mitraphylline inhibit cancer cell motility by suppressing epithelial-mesenchymal transition via integrin α 4-mediated signaling." *Scientific Reports* 15.1 (2025): 22807.

3. Sudmoon, Runglawan, et al. "Discovery of rhynchophylline and mitraphylline in two Thai *Mitragyna* species and the investigation of their biological activity via opioid gene expression analysis." *Scientific reports* 15.1 (2025): 5865.

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The antibodies were developed in collaboration with the Forensic Laboratory of Biologically Active Substances (BAFA) at the University of Chemistry and Technology, Prague.
<https://bafa.vscht.cz/>

