

Flumazenil, GABAA receptor antagonist

Catalog	Unit
TBI1081-20MG	20mg
TBI1081-100MG	100mg

Product Details

Formal Name: 8-Fluoro-5,6-dihydro-5-methyl-6-oxo-4H-imidazo[1,5-a][1,4]benzodiazepine-3-carboxylic acid, ethyl ester

Alternate Names: Ro 1722; Ro 15-1788

Molecular Formula: C₁₅H₁₄FN₃O₃

Formula Weight: 303.30

CAS Number: 78755-81-4

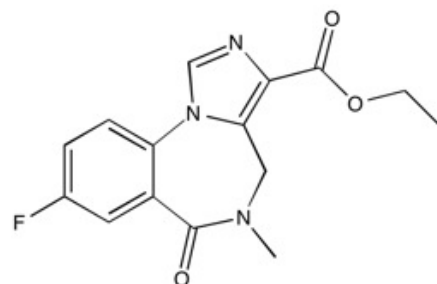
Purity: >98%

Formulation: powder

Solubility: Soluble in DMSO (up to 8 mg/ml).

Storage: -20°C

Stability: ≥ 2 years.



Applications

GABAA receptor antagonist

Functions

GABAA receptor, and benzodiazepine, antagonist (radioligand binding assay in rat cortical synaptosomes, IC₅₀ = 2 nM). Panspecific for $\alpha 1$, $\alpha 2$, $\alpha 3$, or $\alpha 5$ -containing GABAA receptors. When used at 10 μ M in HEK-293 cells, flumazenil reduces $\alpha 4\beta 2\delta$ GABAA receptor at the cell surface, likely through an increase in its endocytosis and lysosomal degradation. Used to study GABAA signaling, and develop new benzodiazepines. Reduces withdrawal sequelae in benzodiazepine dependence. Reverses the toxic effects, including coma and respiratory depression of zolpidem intoxication⁴ and gabapentin-induced coma.

Application Procedures

First dissolved in DMSO (up to 8 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20°C for up to 3 months.

For research use only.