3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

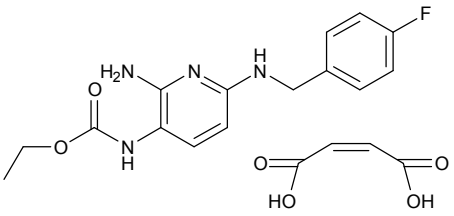
Product Information

Flupirtine maleate

Catalog Number **F8927**
Storage Temperature 2–8 °C

CAS RN 75507-68-5
Synonym: 2-Amino-6-([(4-fluorophenyl)methyl]amino)-3-pyridinyl-carbamic acid ethyl ester maleate

Product Description



Molecular Formula: $C_{15}H_{17}FN_4O_2 \cdot C_4H_4O_4$
Formula Weight: 420.39

Flupirtine is an analgesic drug that acts as an antagonist at NMDA receptors.[1] *In vitro* studies of the effect of flupirtine on L-glutamate toxicity in rat pheochromocytoma (PC12) cells showed a marked decreased in non-receptor-mediated necrotic cell death in cultures treated with 10 mM L-glutamate for 72 hours.[2] Additionally, the increase in levels of reactive oxygen intermediates during L-glutamate-induced cell death was minimal, suggesting flupirtine is also an anti-oxidant. Thus, flupirtine is effective in compensating the oxidative stress induced by cysteine deprivation. In contrast, flupirtine has no effect on the excessive activity of monoamine oxidase during L-glutamate treatment.

Recently, flupirtine was found to be cytoprotective against cell death in neurons treated with PrP^{Sc} or $PrP^{106-126}$, suggesting flupirtine will be useful in studying the cell death associated with prion-related neuro-degenerative diseases such as Creutzfeldt-Jakob disease (CJD).[3]

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Flupirtine is freely soluble in DMSO (>20 mg/ml), but insoluble in water.

Storage/Stability

Store the product tightly sealed at 2–8 °C.

References

1. Schwartz, M. et al., Eur. J. Pharmacol., **276**, 247-255 (1995).
2. Seyfried, J. et al., Eur. J. Pharmacol., **400**, 155-166 (2000).
3. Muller, W.E. et al., Mech. Ageing Dev., **116**, 193-218 (2000).

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