Product Name: Flumazenil
Catalog No.: 1328
Batch No.: 5

CAS Number: 78755-81-4
IUPAC Name: 8-Fluoro-5,6-dihydro-5-methyl-6-oxo-4H-imidazo[1,5-a][1,4]benzodiazepine-3-carboxylic acid, ethyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \(\text{C}_{15}\text{H}_{14}\text{FN}_{3}\text{O}_{3}\)
Batch Molecular Weight: 303.29
Physical Appearance: White solid
Solubility: DMSO to 25 mM
Storage: Store at +4°C

2. ANALYTICAL DATA

HPLC: Shows 100.0% purity
\(^1\)H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis: Carbon Hydrogen Nitrogen

Theoretical  | 59.4  | 4.65  | 13.85
Found      | 59.31 | 4.64  | 13.82

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
Product Information

**Product Name:** Flumazenil   
**Catalog No.:** 1328    
**Batch No.:** 5

**CAS Number:** 78755-81-4

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

**Description:**  
Benzodiazepine antagonist, non-selective for \( \alpha_1, \alpha_2, \alpha_3 \) or \( \alpha_5 \)-containing GABA\(_A\) receptors. Centrally active upon systemic administration in vivo. Also inhibits repressor element-1 silencing transcription factor (REST) by targeting degradation.

**Physical and Chemical Properties:**

- **Batch Molecular Formula:** \( C_{15}H_{14}FN_3O_3 \)
- **Batch Molecular Weight:** 303.29
- **Physical Appearance:** White solid
- **Minimum Purity:** \( \geq 99\% \)
- **Storage:** Store at +4°C

**Solubility & Usage Info:**

- **Solubility & Usage Info:** DMSO to 25 mM

**Stability and Solubility Advice:**

- **Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).**
- **Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:**
  - **SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
  - **SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

- **Atack et al** (1999) Regional differences in the inhibition of mouse in vivo [\( ^{3}H \)]Ro 15-1788 binding reflect selectivity for \( \alpha1 \) versus \( \alpha2 \) and \( \alpha3 \) subunit-containing GABA\(_A\) receptors. Neuropsychopharmacology 20 255. PMID: 10063485.