

Certificate of Analysis

www.tocris.com

Product Name: Ibudilast

Catalog No.: 1694

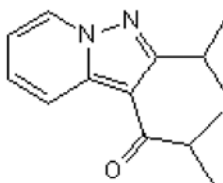
Batch No.: 1

CAS Number: 50847-11-5

IUPAC Name: 2-Methyl-1-[2-(1-methylethyl)pyrazolo[1,5-a]pyridin-3-yl]-1-propanone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₁₈N₂O
Batch Molecular Weight: 230.31
Physical Appearance: White solid
Solubility: DMSO to 100 mM
ethanol to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Ethyl acetate:Petroleum ether [1:1])
Melting Point: At 60°C
HPLC: Shows 99.4% purity
¹H NMR: Consistent with structure

Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 73.01 | 7.88 | 12.16 |
| Found | 73 | 7.9 | 12.18 |

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

bio-techne.com

info@bio-techne.com
techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors
Tel: +1 612 379 2956

Product Name: Ibudilast

Catalog No.: 1694

Batch No.: 1

CAS Number: 50847-11-5

IUPAC Name: 2-Methyl-1-[2-(1-methylethyl)pyrazolo[1,5-a]pyridin-3-yl]-1-propanone

Description:

Phosphodiesterase inhibitor (IC₅₀ values are 53, 35, 48, 12 and 10 μM for PDE Ia, II, III, IV and V respectively). Inhibits platelet aggregation and is an orally-active cerebral vasodilator, bronchodilator and antiallergic agent.

Physical and Chemical Properties:

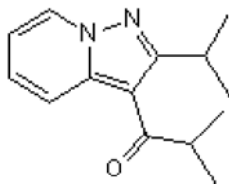
Batch Molecular Formula: C₁₄H₁₈N₂O

Batch Molecular Weight: 230.31

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 100 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:

Kishi *et al* (2001) Ibudilast: a non-selective PDE inhibitor with multiple actions on blood cells and the vascular wall. *Cardiovasc. Drug Rev.* **19** 215. PMID: 11607039.

Souness *et al* (1994) Possible role of cyclic AMP phosphodiesterases in the actions of ibudilast on eosinophil thromboxane generation and airways smooth muscle tone. *Br.J.Pharmacol.* **111** 1081. PMID: 8032594.

Nishino *et al* (1983) KC-404: a potential anti-allergic agent with antagonistic action against slow reacting substance of anaphylaxis. *Jpn.J.Pharmacol.* **33** 267. PMID: 6193303.

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956